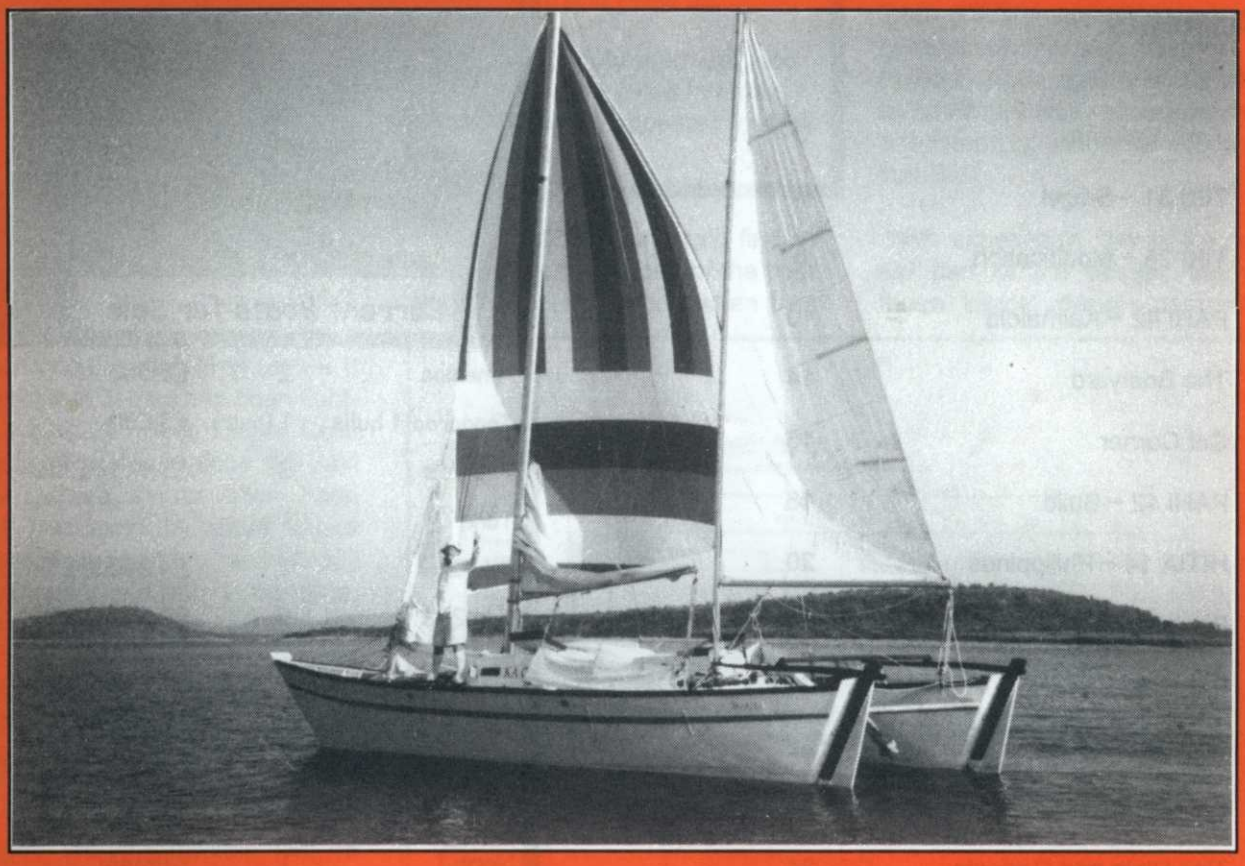
The Sea People



- Latest designs from JWD
- Kaimalolo sets off and returns
- TIKI 31 – Maui in North Wales
- TIKI 26 – Australian Mods.
- Iceland Adventure
- Cat Corner – Scillies
- Hitia 14 – Philippines

No 38

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The Sea People

Magazine of the Polynesian Catamaran Association

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Boa Gente, Tangaroa Mk1, sailing on Lake Kariba – Zimababwe. Owner Keith Viewing

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Current Boats for Sale

Hinemoa	2	£2,500
Tangaroa 4 hulls	1 (pair)	£3,000
Tiki 21's	3	£3.9k to £5.3k
Tane	1	.....
Pahi 26	2	£4,250 & £5k
Tiki 26's	5	£7.5k to £11.5k
Tiki 28	1	£18,500
Tane	1	£6,800
Pahi 31	1	£8,500
Tangaroa 4	1	£19,500
Narai 1	1	£18,000
Narai 4	1	$45,000
Pahi 42's	6	£29k to £45k

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JIM'S COLUMN

Ruth Wharram brings us up to date with activities this winter/ spring.

Coming back from our lecture trip to Holland and Germany I found the January 99 'SEA PEOPLE' awaiting me and noticed that we had neglected to write anything for this issue. In fact, I did send in the article by Bill McGrath on his forthcoming 'Iceland Viking Navigation Voyage' (Cruising Iceland page 27 - Adrian) in which James and Hanneke will be participating using Peter Richardson's PAHI 42 'TOROA'.

However, the main reasons for a missing contribution from us are I) the fact that James has been fighting the RCD ('Recreational Craft Directive') at least since the last AGM, where it had been been much discussed, by writing letters to yacht magazines and finally Newspapers and MPs in our area. The response of the newspapers and MPs was very positive. Let us hope it will finally be taken up by the powers in Brussels and something done about it.

The other reason was our 2 new designs, the long awaited TIKI 46 and the PAHI 52. Details are show here.

The lecture trip consisted two lectures, one to the Dutch CTC ('Catamaran and Trimaran Club') and the other at a 3 day Symposium of the German 'Multihull Deutschland' in Bonn were very well attended and a great success. For me, it was quite amazing how many people I saw which I had met or sailed with many, and some even as much as 26 years, ago!

James and Hanneke have just returned from Corfu to get the 'SPIRIT OF GAIA' ready for her Summer sailing, which, hopefully, will not be made difficult by the war not far away. They have been with the editor of the Italian yacht magazine 'BOLINA' to discuss with them - as already with the Dutch 'ZEILEN- amongst other things how the RCD affects their country. FOR SIX YEARS I have been sailing the major oceans of the world.

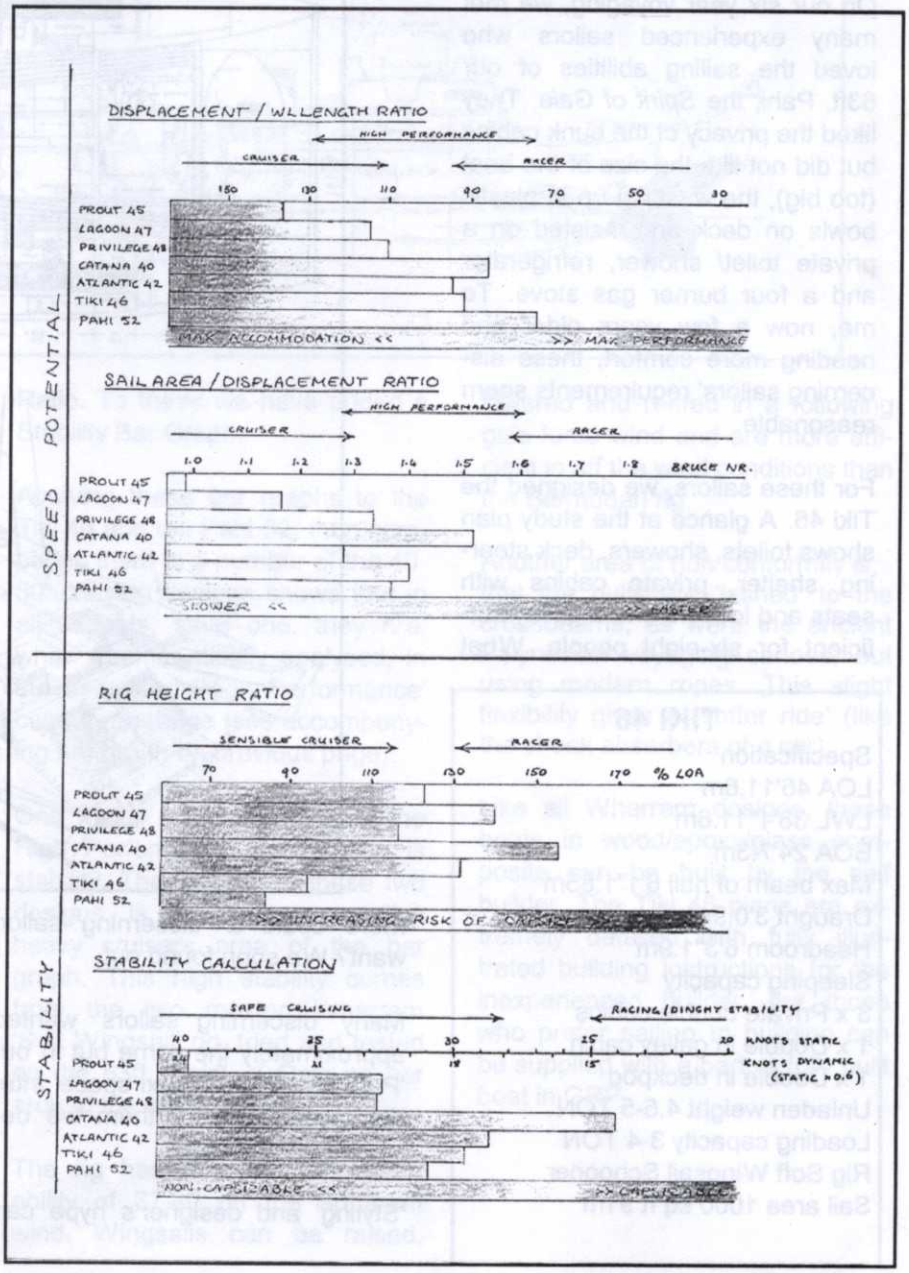
James Wharram descibes the new TIKI 46 and PAHI 52.

The article is published with kind permission of Multihull International. Originally appeared in April 1999 edition.

Some multihull designers find inspiration on the screen of the computer. I find inspiration when I am 's**t scared' at the rapid approach of a huge white capped wave. It is as if the adrenaline of 'How do I get out of this?' gets connected to 'How do I design my way out of this?' writes James Wharram.

In seagoing catamaran design, there are two conflicting design requirements. To me, the most important one is sailing ability which is seaworthiness, speed, ease of sail handling, windward ability and stability.

With experience, this is the easiest part of the design, but with these logical design parameters



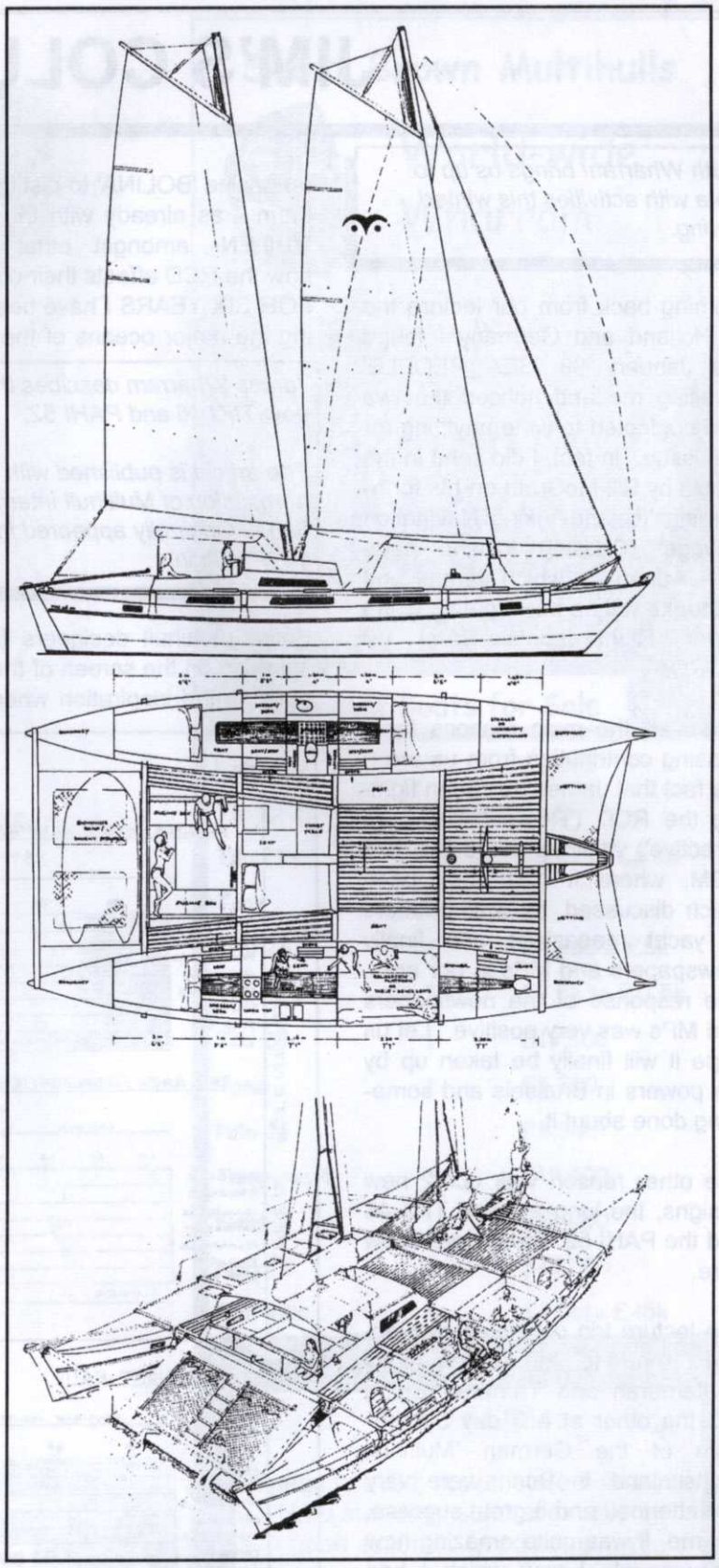
the resultant craft ends up with on board living comfort equal to that of an ancient Pacific voyaging canoe or the latest around the world sponsored racing catamaran!!

To many people, the more important requirements in modern cruising catamaran design are styling and five star 'comfort', standards which in recent years have been heavily influenced by the development of the French charter yacht catamaran.

The design purposes behind these craft is to take well paid urban man on luxury holidays in sheltered waters. These designs fulfil this purpose extremely well, but they do not please all would-be seagoing catamaran owners.

On our six year voyaging, we met many experienced sailors who loved the sailing abilities of our 63ft, Pahi, the *Spirit of Gaia*. They liked the privacy of the bunk cabins but did not like the size of the boat (too big), the washing up in plastic bowls on deck and insisted on a private toilet/ shower, refrigerator and a four burner gas stove. To me, now a few years older and needing more comfort, these discerning sailors' requirements seem reasonable.

For these sailors, we designed the Tiki 46. A glance at the study plan shows toilets, showers, deck steering shelter, private cabins with seats and lockers and a galley sufficient for six-eight people. What more could a 'discerning sailor' want? We soon found out.

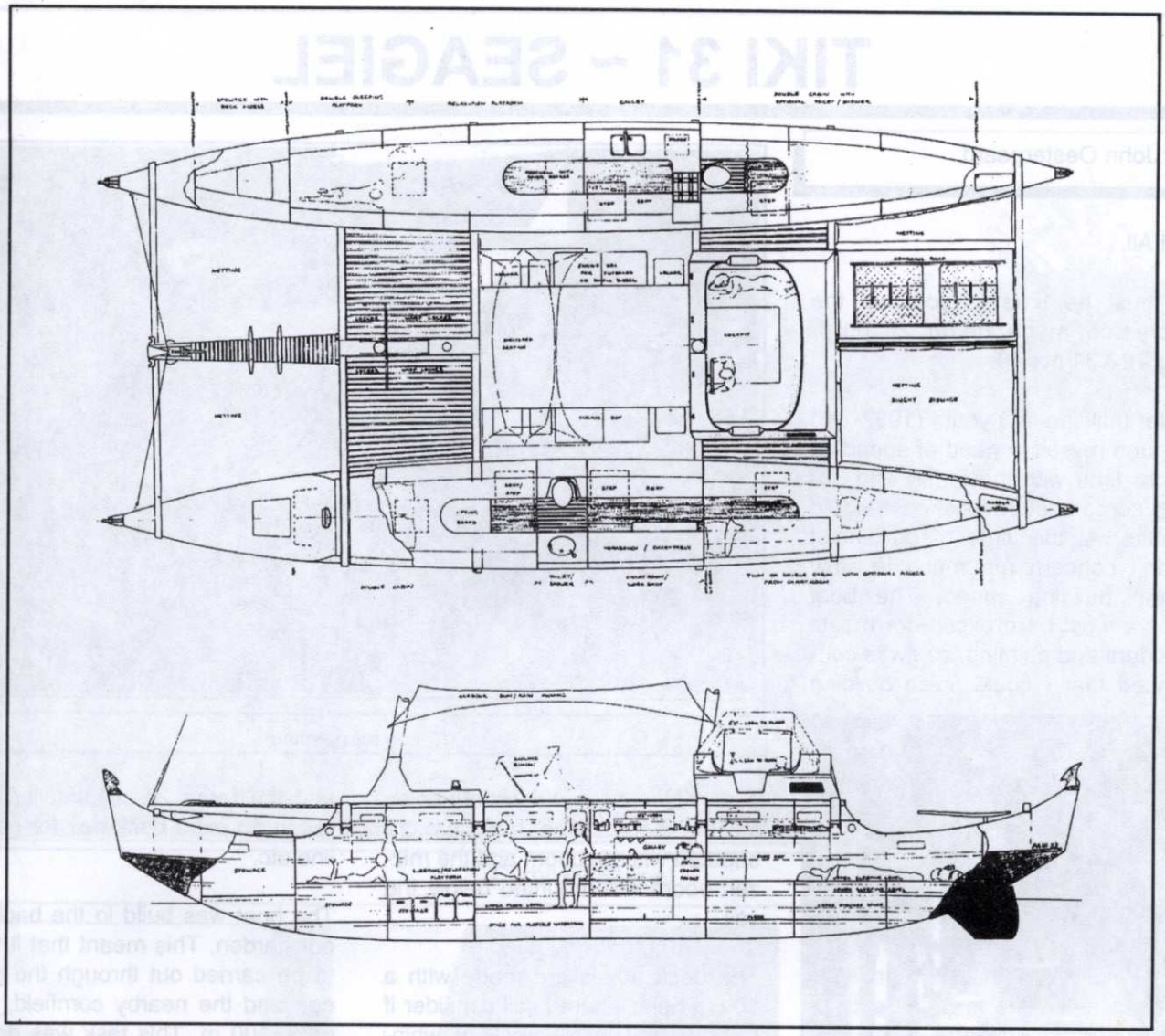


TIKI 46

Specification
LOA 46'11.6m
LWL 38'1"11.6m
BOA 24'7.3m
Max beam of hull 6'1"1.85m
Draught 3'0.9m
Headroom 6'3"1.9m
Sleeping capacity
3 x Private double cabins
1 x Double in galley cabin
1 x Double in deckpod
Unladen weight 4.5-5 TON
Loading capacity 3-4 TON
Rig Soft Wingsail Schooner
Sail area 1000 sq ft 91m

Many 'discerning sailors' wanted approximately the same but in our 'Pahi styling' and 'flexi space' interior layout. So, for them we designed the Pahi 52.

'Styling' and designer's hype can give a misleading picture of a boat's sailing abilities. Fortunately, 'Cruising World' of America, in April 1997, in an article on seagoing catamaran design gave its readers a series of bar graphs to enable them to see into the design basics of cruising catamaran designs on offer to the market. At one end of the bar graph would be the word



Pahi 52

Specification
LOA 51'8"15.75m
LWL 42'12.80m
BOA 24'7.3m
Max beam of hull 6'1.83m
Draught (max)2'9"0.85m
Headroom 6'2"1.88m
Sleeping capacity 8
Unladen weight 5-5.5 TON
Loading capacity 4-4.5 TON
Rig Gaff Wingsail Schooner
Sail area 1000 sq ft 91m

'Cruising', at the other 'Racing' and somewhere in between 'High Performance', ie. fast cruising designs.

The graphs covered freeboard (or windage), height of the underside of the platform from the sea, Beam/Length Ratio of the individual hulls, OAB (overall beam)/ Length Ratio, Sail Area/Weight Ratio and Displacement/Length Ratio. To these we have added a Stability Bar Graph.

Applying these bar graphs to the Tiki 46 and the Pahi 52, then comparing them to a number of the 40-50' cruising designs shows that in all aspects, save one, they are, when mathematically analysed, in the described 'High Performance' catamaran range (see accompanying bar graph on previous page).

One factor not conforming to the High Performance designation is stability. The stability of these two designs is in the conservative heavy cruisers area of the bar graph. This high stability comes from the two masted Wharram 'Soft Wingsail' rig, tried and tested on the 63ft, *Spirit of Gaia* on her around the world voyage.

The rig has a proven windward ability of 37-40 off the apparent wind. Wingsails can be raised, lowered and reefed in a following gale force wind and are more efficient in off the wind conditions than the Bermudan rig.

Another area of non conformity is, that the hulls are 'lashed' to the crossbeams, as were the ancient Polynesian voyaging canoes, but using modern ropes. This slight flexibility gives a 'softer ride' (like the shock absorbers of a car).

Like all Wharram designs, these boats in wood/epoxy/glass composite can be built by the self builder. The Tiki 46 plans are extremely detailed with fully illustrated building instructions for the inexperienced builder, but those who prefer sailing to building can be supplied with a part or fully built boat in GRP.

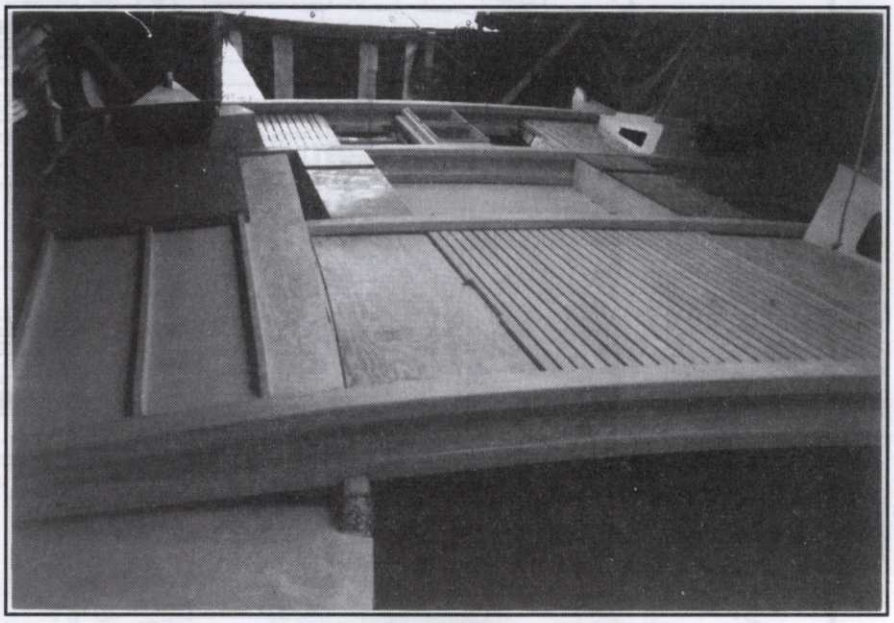
TIKI 31 ~ SEAGIEL

by John Oestergaard

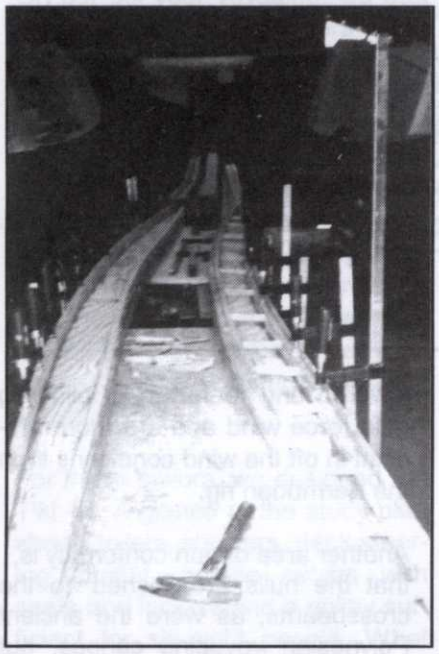
Hi All.

It must be time to continue the story from magazine no. 27, building TIKI 31 no. 79.

After building in 3 years (1992- 95) I found myself in need of spending more time with the family and doing some restorations on the old house. At this time of building it didn't concern me much to slow down building speed. The boat was almost build except for masts rudders and painting, so I was convinced that I could finish building



Ready for painting



Building Crossbeams

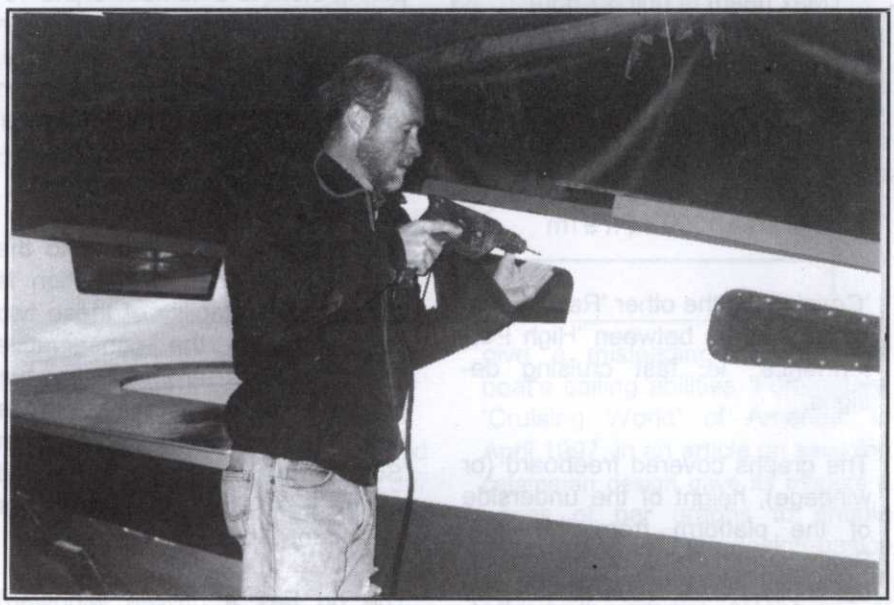
this dream.
For the windows I have used PC Lexan, that has a better resistance to salt and sun, than Perspex. The masts are made of used wooden masts fitted nearly to drawing specifications (they are made one foot longer) and covered with one layer of fibreglass for better stiffness and less maintenance. Next year I will add a clog on each side of the masts where the sails can rest when lowered. I hate sails laying on the deck.

The sails are made by Jeckells in a navy blue cloth and without holes for the boom. The mainsail are sheeted without boom and the mizzen boom are mounted below the sail.

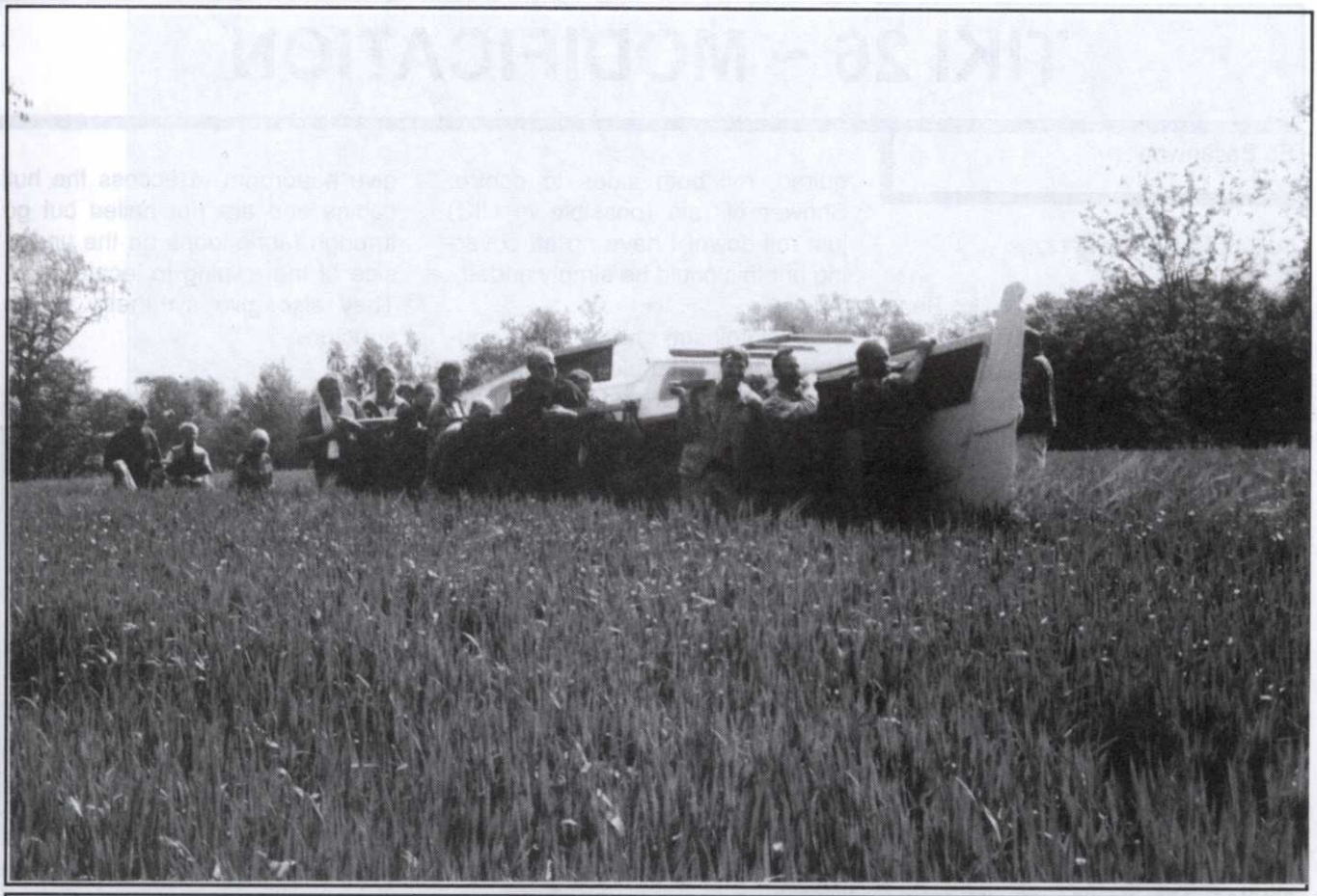
The deck boxes are made with a 10 cm hole, where I still consider if I should put in a wheel- or whipshaft steering system or nothing at all.

Between crossbeam 3 and 4 I have made each side deck 10 cm and the ramp 20 cm smaller and put in an extra deck box for gasoline etc.

The boat was build in the back of our garden. This meant that it had to be carried out through the garden and the nearby cornfield, approx. 100 m. This task was done, one hull at a time, by 20 friends and neighbours and that was not one to many. A day of laughing, carrying and beer drinking. During the next week the boat was as-



Drilling window fixings with a backing piece.



Cornfield Sailing!

A quiet day.

sembled and was launched on 30 May 1998 after 5½ years of building. About 50 friends, family and neighbours helped name her "Seagiel" (Nordic Middle Age word for seabird) and see her floating for the first time. A great day.

I am very satisfied with sailing performance, though not as fast as expected. Under most conditions we just leave the rudder to make sail adjustments or whatever. With a ½ S rubber band and a bit trimming she almost sails herself. The hardest wind we meet this year was 10-15 m/s with short steeped seas. Even in these conditions, with full sail and going windward, she only sank the lee hull a little and no sign of lifting the other; a rather wet affair though. But ok, we were dressed for the Danish summer anyway.

We have a video of the "cornfield sail" from the building shelter to the road, the launching and the first sail. A copy will be send to the PCA at a later date. I intend to lay all my building pictures, over 100, out on my homepage and maybe the video, too.

Happy trails !

The dream team

TIKI 26 ~ MODIFICATION

Eb Ballantyne

Fellow Tiki 26 Owners,

Following my contribution in Sea People No. 33 re deck pod or cabin, I propose to illustrate an accessory to that cabin which I have found most useful.

It is essentially a simple Oriental type awning with all the manifold advantages which accrue when a few thousand years' experience is mated with fairly modern materials (are you getting a feeling of deja vu?).

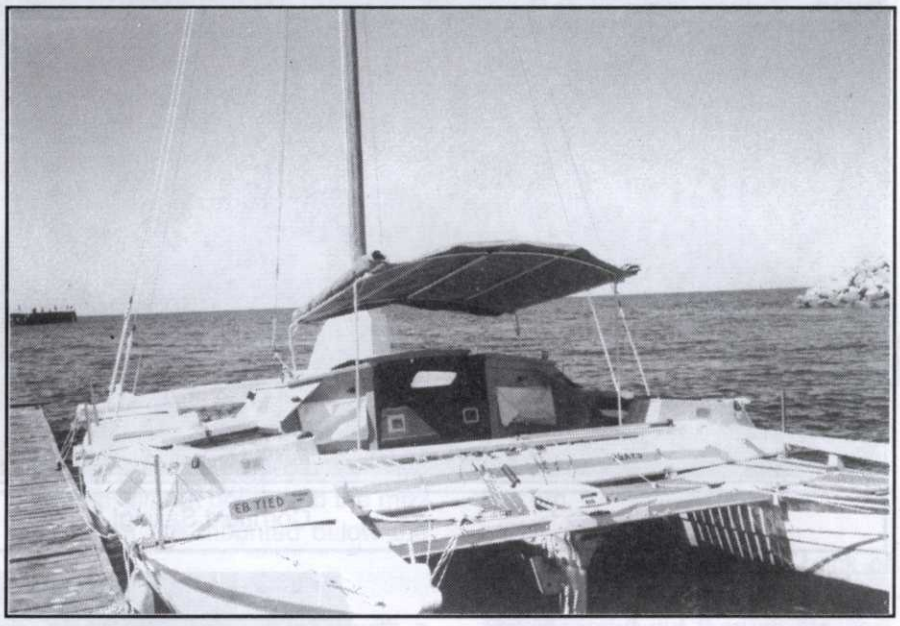
The covering material is light canvas or duck and the framing light aluminium tube, the longitudinal battens being of square wood about three quarters of an inch diameter. The awning covers from gunwhale to gunwhale, thus ensuring dry access from hull and deck cabins to the cockpit. It is easily erected and dismantled and when rolled up is simple to stow.

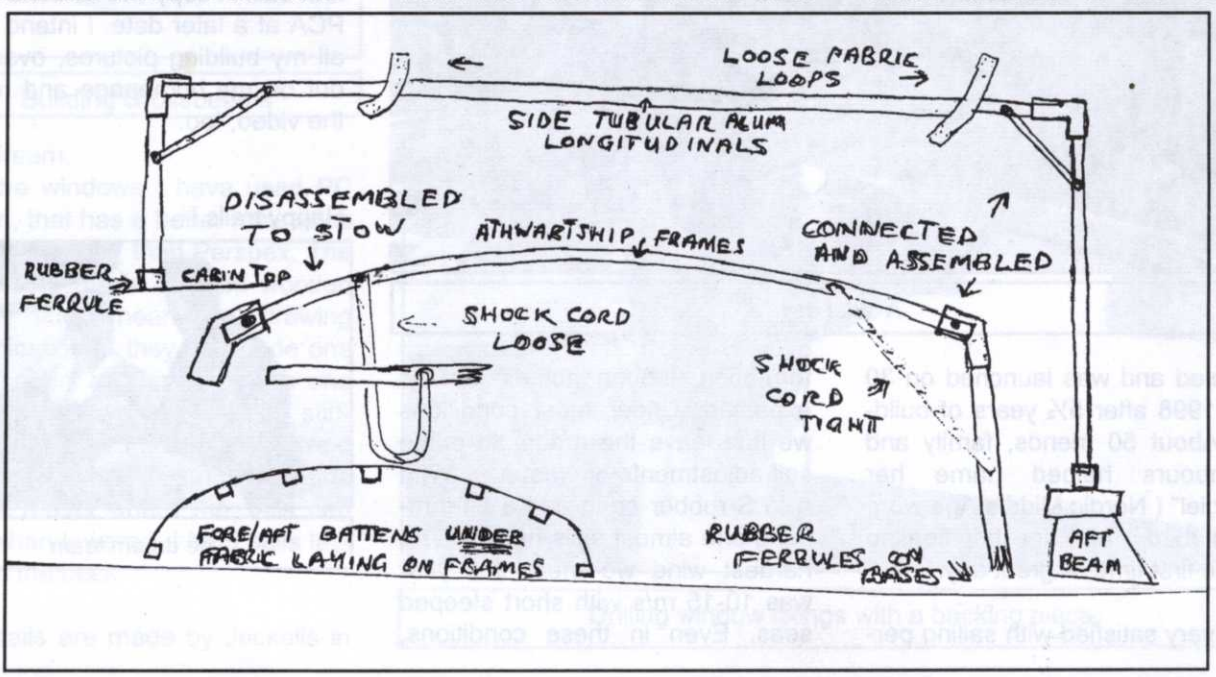
Simplicity is a strong point. If full cover is required use full cover. If hot, just remove windscreen to have the benefit of a fore and aft breeze. If chill wind from port and sun to starboard roll up starboard side and vice versa. Full sun required, roll both sides to centre. Shower of rain (possible in UK!) just roll down! I have no aft covering but this could be simply added.

The aluminium tubes are connected by plastic electrical conduit corners, pop riveted. A central fore-and-aft tube connects the forward transverse frame with the aft one for location and stability. This can be connected with plastic power boat awning fittings. Fore and aft awning battens, of aforesaid square wood are fastened to the covering material with copper nails. The outer fore-and-aft tubes give headroom to access the hull cabins and are not nailed but go through fabric loops on the underside of the awning to locate them. They also give symmetry to the structure.

I have fastened the outer or lowest battens by making them longer than the others to overlap by about 3 in. The forward projection goes into a bracket on the hull cabin top and the aft one secured by shock cord and a hook to a saddle on the aft beam (both sides, of course).

When inserted in the forward





bracket and the aft elastic cord is pulled down this tightens the awning across the frames.

The windscreen is the same material as the awning, has flexible plastic ports which admit light and improve the visual effect. It is Velcro'ed to an overlap of awning material forward at top and press studded to mast beam, cabin top and (when cabin hatch is open and therefore moved forward) a second set of studs enable it to be affixed to that.

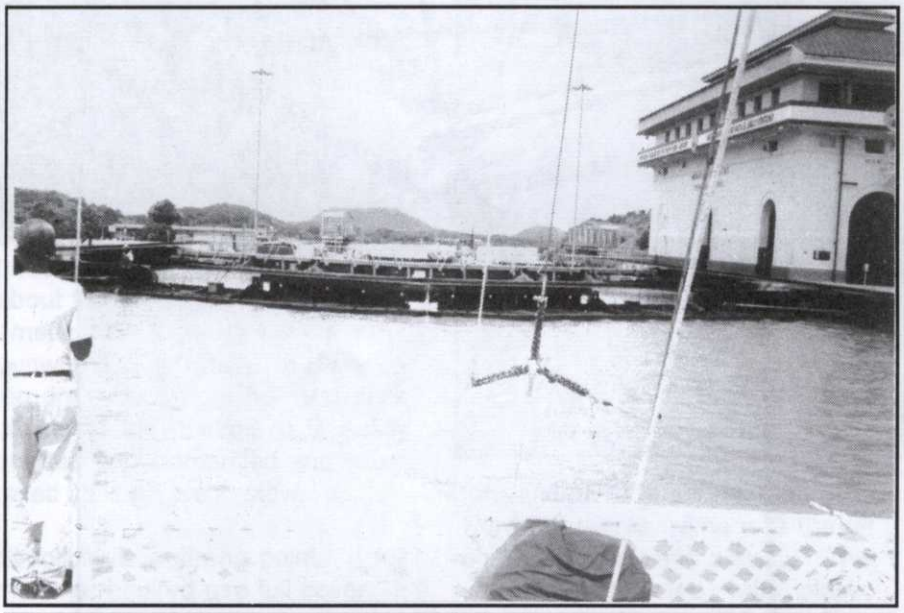
A cord around the mast tied to grommets in the overlap material forward gives fore and aft stability to the structure in windy conditions.

This structure has given great improvement to life in port, with a modicum of privacy and comfort, "consummations devoutly to be wish'd" on the very efficient but somewhat Spartan smaller Wharrams.

PAHI 42 ~ KAIMALOLO

Robert E. and Cleo D. Phillips *The story of false start and lessons learned on patience with officialdom.*

We departed from Balboa, Panama, on July 18 bound for the Marquesas. After 38 days at sea, we had to turn back to repair damage. We arrived back in Balboa on September 13, or after 57 days at sea. We faced an unbelievable hassle with Immigration officials to re-enter Panama, but reason prevailed after we paid our entry taxes again. Now to refit.



Kaimalolo in the Panama Miraflores Locks bound for Miraflores

Originally, we were scheduled to depart the Pedro Miguel Boat Club on June 29, but engine trouble forced us to delay until July 17. After an eventful transit of the last two locks, we spent a comfortable evening at the Balboa Yacht Club, and on Saturday, July 18, we slipped our mooring and headed south in the gulf of Panama, bound for Nuku Hiva in the Marqueses, French Polynesia, 3800 miles to the SW.

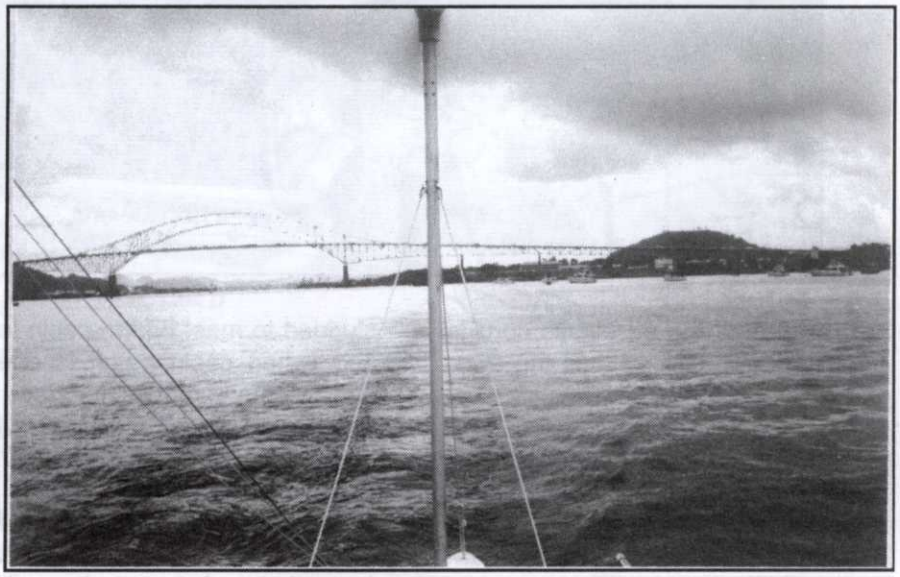
It was the rainy season and we soon found that the weather was not ideal. The winds were from the SW quadrant, clouds moved from the south full of rain by the gallons, and three wave fronts came from 220-240°T, 190-210° T, and 135-145°T during the entire period. Wind force was 10 to 15 knots with higher gusts in and near the thunderstorms and squalls. The waves, though, were the biggest menace, causing us to slam sideways from crests to troughs. After 30+ days, things began to loosen and finally break.

During one period of relative calm, Cleo made two trips up the mast in a bosun's chair to replace a shattered shackle that held up the end of the wire jackstay that held the head of the wishbone main boom in place. It was nearly a disaster when the wind and seas suddenly jumped up. That was the last time we attempted that trick-

On the day 38 out, the same shackle broke again, allowing the boom to shift forward about two feet. That precluded setting the mainsail and posed a threat to the watch in the cockpit with serious injury (possibly fatal) if the boom hoist should fail too. We turned back for another 19 days running downwind with only a headsail set.

Earlier we had lost use of the autopilot, water-driven electric generator, and laptop computer to copy weather data.

With 3,000 miles left to go and no islands in between, we had no choice but to turn back. We knew that we could haul out at Pedro Miguel and replace the several crossbeam bearing blocks that were worn. Several beam locator blocks needed to be relocated, and most of the beam lashings had to be re-tensioned or replaced. The stainless pin in the after net beam on the starboard side (this time) had to be replaced for it too had shattered. I stabilised most of those problems with pieces of old mooring lines but the



Leaving the Bridge of the Americas astern, Kaimalolo departs en route to Nuka

On the hard at the Pedro Miguel Boat Club. The staging is being set up to facilitate repairs and repainting.

main boom problem I could not repair at sea. The physical drain of hand steering 12 hours of every day was taking a real toll on us. Cleo lost another 10 lbs. while I lost another 17 lbs.

I decided that a major refit was in order. We would be ready to try again in the dry season.

Upon our return to Balboa while we were about 2 miles from the sea bar, we were concerned to avoid several merchant ships that were coming and going. A large tanker on our port hand was going out, opposite to our course and about 500 yards away. A VERY large whale surfaced between us in a leap, twisted a quarter turn to it's right and made a HUGE splash. The animal repeated the leap twice more, startling the bejesus out of us and the crow of the tanker. There was a pause of a few minutes and then the mammal leaped into the air again, but this time off our starboard side. We never did determine the specie but it was easily 50 feet long.

We picked up a mooring at the Balboa Yacht Club at about 14.00hrs on Sunday afternoon, September 13. The Amador Station Immigration Officer had already closed up shop and gone home so I elected to wait until Monday morning to start (re) entry procedures. The following morning, I went with all my paper work to the Immigration office at Amador. I explained that we had left from Balboa, been in international waters the entire 57 days, and only returned to repair damage suffered in heavy weather. The uniformed officer understood clearly what had happened He concluded that since we had not called at any other port, he could simply annul our previous departure stamp and have a new visa issued. He gave me a hand written note for the Director of Immigration, explaining our circumstances, and he would give us a special clearance.

That did not happen. The bureaucrats in the main office did not accept the story. They summoned the uniformed officer to explain himself. We were suspects. We spent three hours at Immigration on Monday, five hours on Tuesday, four hours on Wednesday.

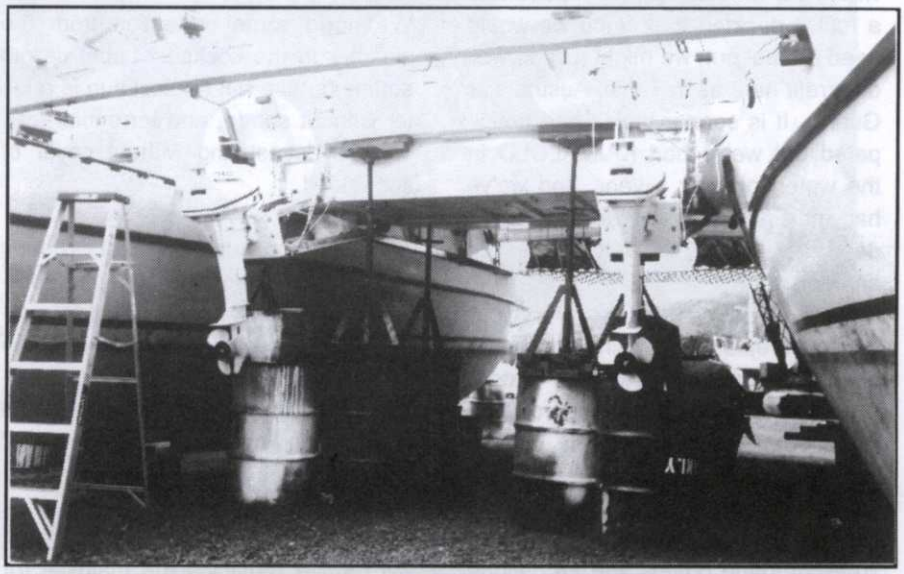
On Thursday I refused to go downtown, instead I went to-the district office at Diablo Heights. The chief of that district understood what had happened and reassured me that we would get our clearance. On Friday, we went once more to the downtown office where, after another three hours, we were granted a 30-day visa and required to pay another $25 apiece for entry tax and $15 each for an ID card picture. At no time did any official speak to us in English No one would answer the question, "What did we do wrong?" What did light a fire, though, was when I asked to see a telephone directory for the number of the American Embassy. Neither of us needed all that after 57 days at sea!

Did we run short of food or water?

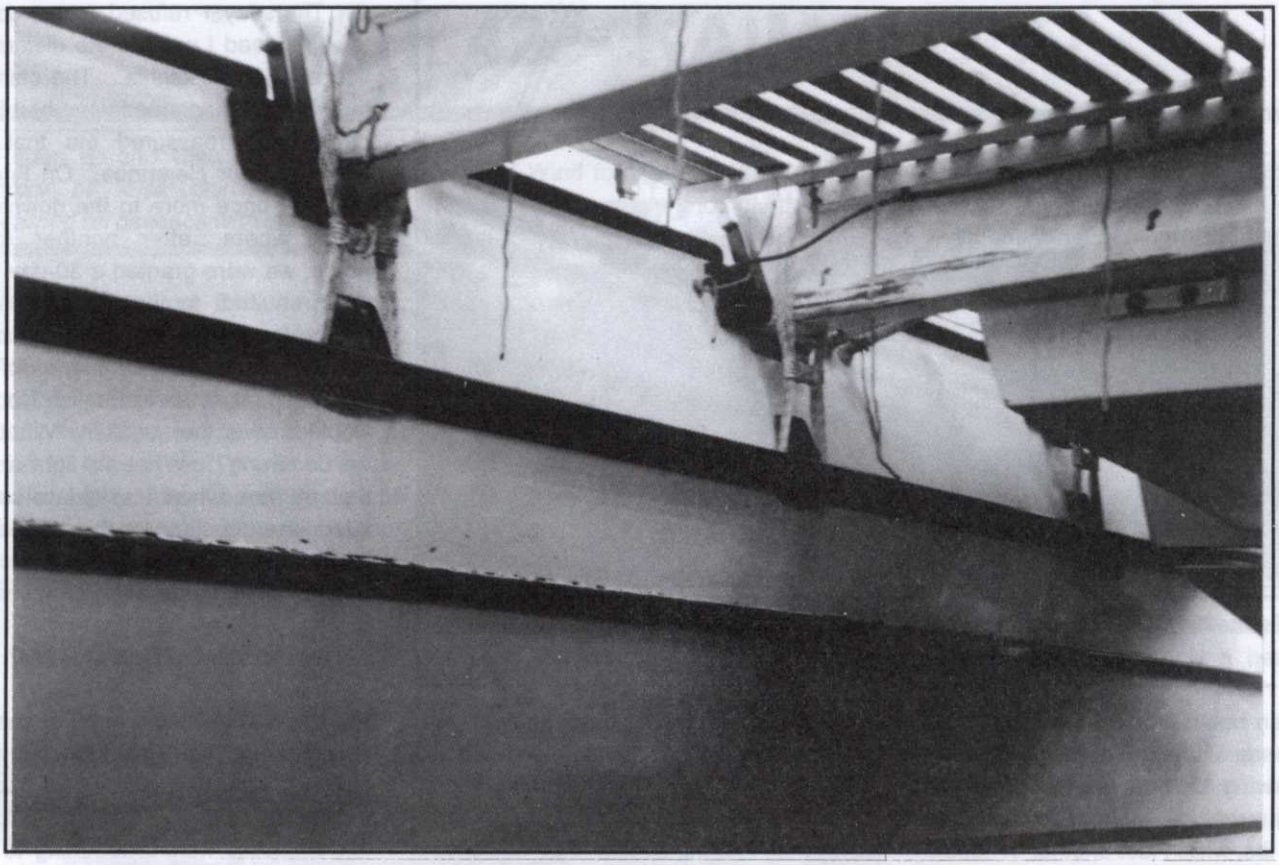
No. We had expected to be at sea for seven or eight weeks in the first place. Second, with all the rain, we caught more than enough rainwater to keep our tanks full without resorting to the water

Will we try that voyage again? Yes, but this time we will do it during the dry season. The DMA Sailing Directions for the west coast of Central America advise against it in the rainy season. I did not see that until after we returned to Balboa!

Was there adequate weather data available for the area? No. The only weather data available for the area just west of Panama from marine fax transmissions is totally inadequate.



Using jack stands, we are able to unlash and raise each main crossbeam, lift the beams and replace the bearing blocks with oak pieces.



A fish-eye view of bearing blocks under the main cross beams. We used 2"x4"x4" oak to replace the mahogany blocks that wore excessively. We installed Delrin plastic pieces under the #3 mast beam, the same material used by the Canal for bumpers along the lock piers.

The voice weather broadcasts from San Francisco were unreadable. My weather satellite receiver was useless because the laptop computer needed to display the picture was dead.

On Thursday, October 1, we moved the boat back through the two lower locks from Balboa to the Miraflores Lake and the Pedro Miguel Boat Club where we will haul out for repairs and a refit. I decided that since we would need to haul out, we might just as well do a refit here as in Tahiti, Australia or Guam. It is sooner than I had anticipated but we've had KAIMALOLO in the water for over a year, and we've had more than enough sea miles under her keels to know what we like and don't like.

We must replace the Main Crossbeam bearing blocks with tougher wood. We need to beef up the inboard lashings because I enlarged the cockpit from the plans and hung two 100 lb. outboards there instead of one of the 35 or so pounds. There are also three 20 lb. propane bottles and 28 gallons of gasoline tanked in the cockpit.

We have never used the dagger boards, so off they go. The dagger board cases will be closed at the bottom and converted to line and fender storage areas. The boarding ramp has proven to be of little practical value and rather dangerous to use while reefing the mainsail. Off it goes to be replaced by netting similar to the bow area.

We need some protection from the weather in the cockpit. Label us old softies but the hot tropical sun is a killer without shade, and torrential rains can be devastating without cover of some kind.

As it is, the mainsail foot sweeps across the top of the Pod and prevents us from having a bimini for protection. The solution is to replace the Wishbone main boom with a conventional boom that is configured to use a quick reefing system and "Lazy lacks" to catch the sail as it is lowered.

Replacing the Wishbone main boom will require replacing the mainsail (or re-cutting the present sail). The new sail will need to be made with plenty of roach in the leech to compensate for the area lost from the foot of the old sail. On the other hand, by positioning the new boom high enough on the mast, we can erect a frame over the cockpit on which to mount the solar panels and a canvas bimini for crew protection.

The towed electric generator has been a dismal failure. On this voyage the shaft seized up before we got out of the Gulf of Panama. When I opened up the case, it was full of salt crystals, pretty good evidence that the machine had never been opened when I sent it for repair after it failed crossing the Gulf of Mexico. That goes.

One item that we can't live without, but we can't seem to live with, is the autopilot. The Autohelm 4000 has failed each time we have gone to sea. This time I found that two tiny little pins in the clutch shaft were broken and I could not fix it. I guess we will pay plenty to have that repaired and we will probably buy a second one to have as a spare. Some delivery Captains carry as many as five spare sets in order to keep one working.

We replaced the broken pin, in the aft net beam on the starboard side, after we arrived back at Balboa. We used an 8 ton automotive hydraulic jack and some nylon strap to lift the beam and insert a new galvanised pin. I finally figured out that the pins kept breaking because of the movement in the #4 and #5 Main Crossbeams (rather than the other way around).

Instead of being discouraged by all this I am very up-beat. I think that we are going to have a better boat after all this. It just took a little time to sort it all out.

Since we have returned to the Pedro Miguel Boat Club, and because we must unstep our mast (which is the antenna) while we are hauled out of the water, we will not be able to use our ham radio. I hope to get an e-mail account going here and get on-line from the club. They have a web site here now, except that a few days ago the system took an indirect hit from an electrical storm and the system is not back up at this writing.

While we have been in what was once the Panama Canal Zone, we have watched the canal in action very carefully. Few people here are happy about the U. S. moving out. There is a lot of money moving under the table here and only a few profit. The Canal Commission is playing games with the locals by moving ships at odd times to unusual places and then holding them. The container ship lines are unhappy with the locals because of efforts to set up container off-loading and holding facilities-thing that the shipping lines don't want.

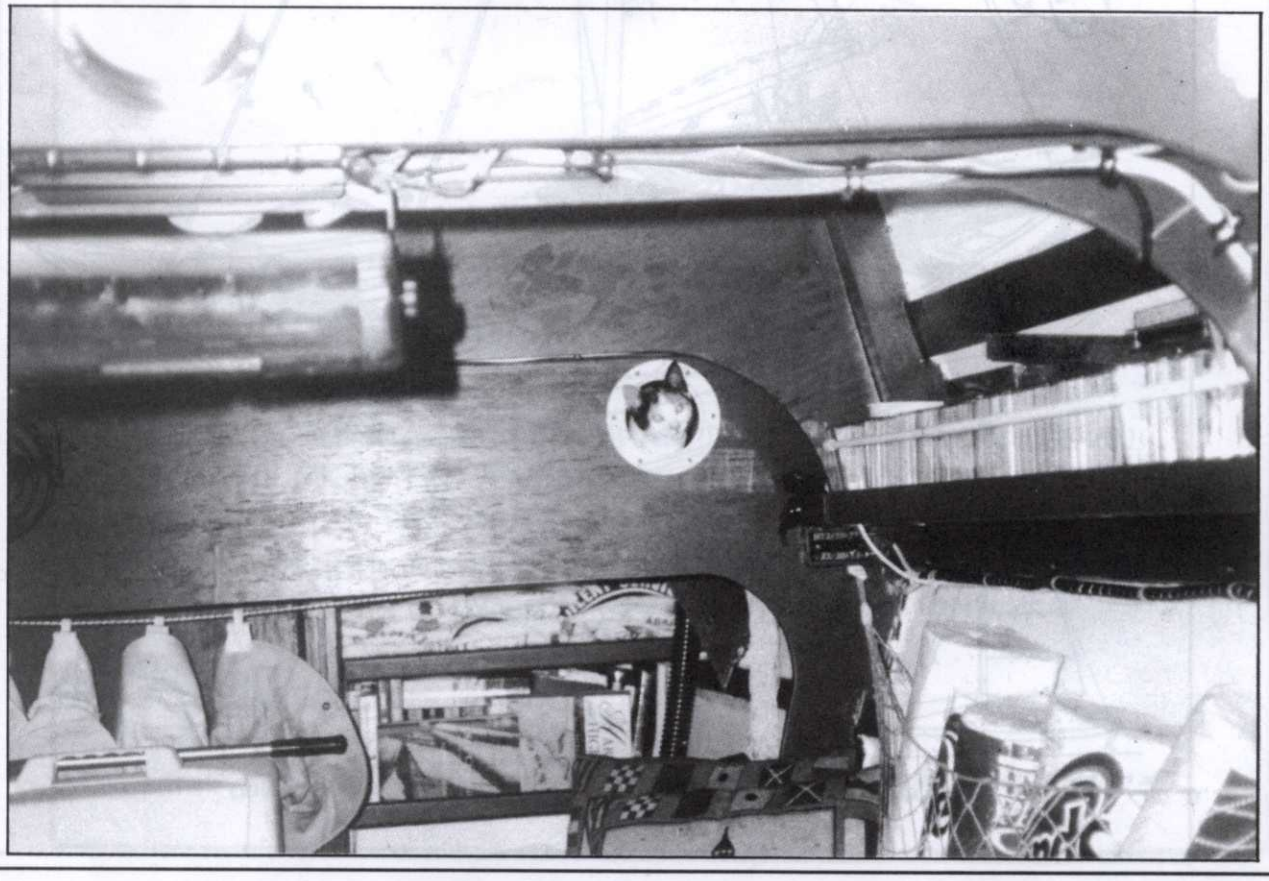
Just recently we learned that Communist Chinese civilian companies have been buying up property at both ends of the canal. Now, Radio Netherlands has aired a report that many (if not all [my words]) of these civilian companies are owned by the Chinese Communist Army. So who will be running the canal in 5, 10 20 even 50 years? What would Alfred Thayer Mahan have said about this? How do we in the U.S. maintain the fiction of a "two ocean Navy?

One advantage to sitting on the edge of the Panama Canal is the front row seat to watch some of the most remarkable ship designs. The special purpose break-bulk heavy cargo carriers special container ships for short haul and third world cargo handling or roll-on, roll-off vessels is fascinating.

We met a nice, clean-cut Irish lad at the club in Balboa who was looking for a ride toward the west for the purpose of getting home to Ireland before Christmas. We were sorry that we couldn't help him but we all enjoyed having a chat. He had worked in the U.S. for some time, then in Mexico, and finally down through Central America. He said that he was often mistaken for an American, but his answer was, "Oh no, I'm Irish. We still have donkeys!"

For more info. about Panama and Pedro Miguel:
•http://pmbc.inpanama.net
•www.panama.phoenix.net/~pmbc/
We are now on kaimalolo@yahoo.com

We also have e-mail now: kaimalolo@yahoo.com



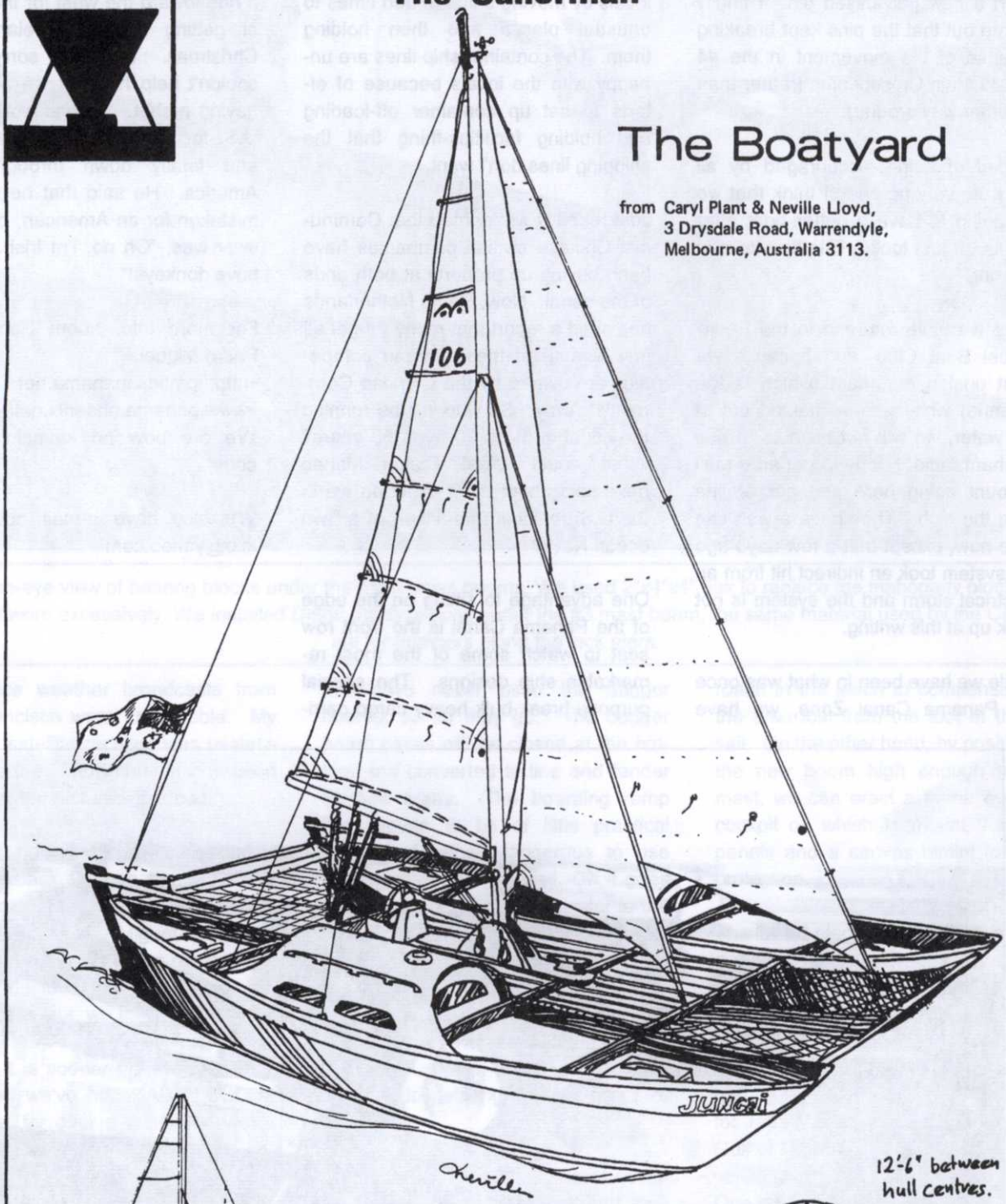
Clearly, we needed professional supervision in our work, provided ably by Michi, leading boat cat from another boat.

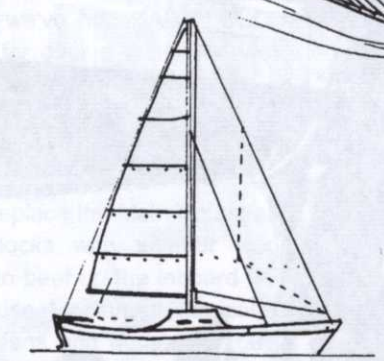
THE BOATYARD

The Sailorman

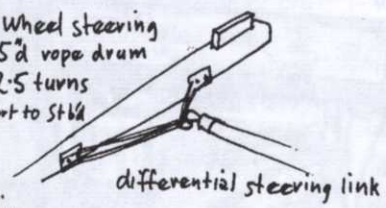
The Boatyard

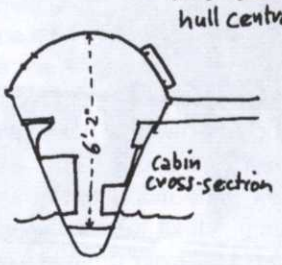
from Caryl Plant & Neville Lloyd,
3 Drysdale Road, Warrendyle,
Melbourne, Australia 3113.





The rig main 217 sq ft mast 36' LOA 35'
jib 221 sq ft Small yanmar 11.2 hp BOA 12' 6"
staysl 70 sq ft Rocker 500 lb Disp 5,000 lb plus

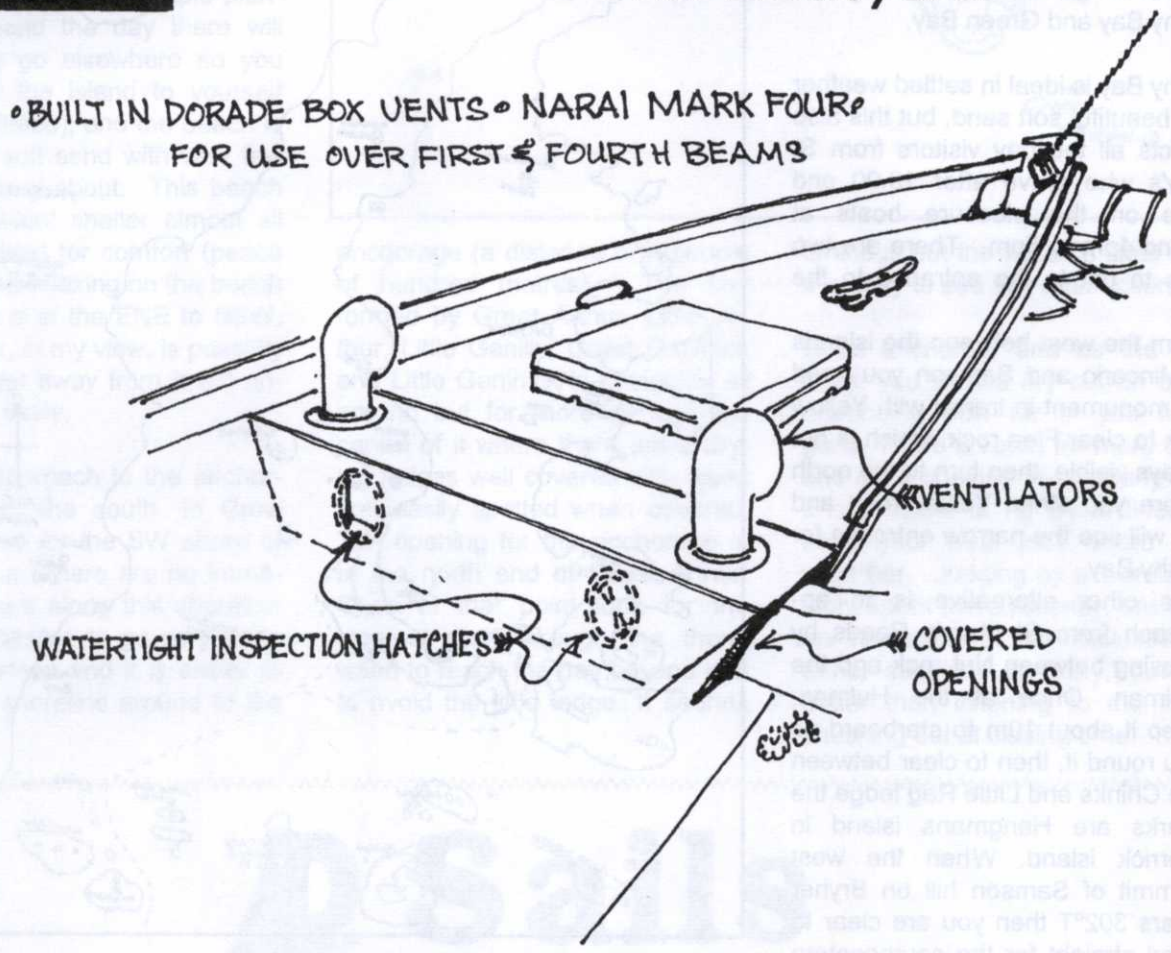




Sailorman, the predecessor to Sea People, set a high standard for diagrams and sketches. Below are a couple of examples. The one thing that we would like to see from you…".Today we are just as good and inventive and here is my idea for……" We await your diagrams and ideas.

The Sailorman

The Boatyard



DEAR POLYNESIAN CATAMARAN ASSOCIATION,

ENCLOSED IS A DRAWING OF AN IDEA WE INTEND TO USE ON OUR NARAI MK 4 • THE VENTILATORS WOULD BE REMOVEABLE WITH SOLID DECK PCS. FOR THOSE TIMES AS REQUIRED • SCREENS COULD BE INCORPORATED IN THE INSPECTION HATCH OPENINGS • WE WOULD APPRECIATE ANY COMMENTS OR RECOMMENDATIONS.

SINCERELY

david & neila 35 liberty st. toronto ont. canada m6k 1a6

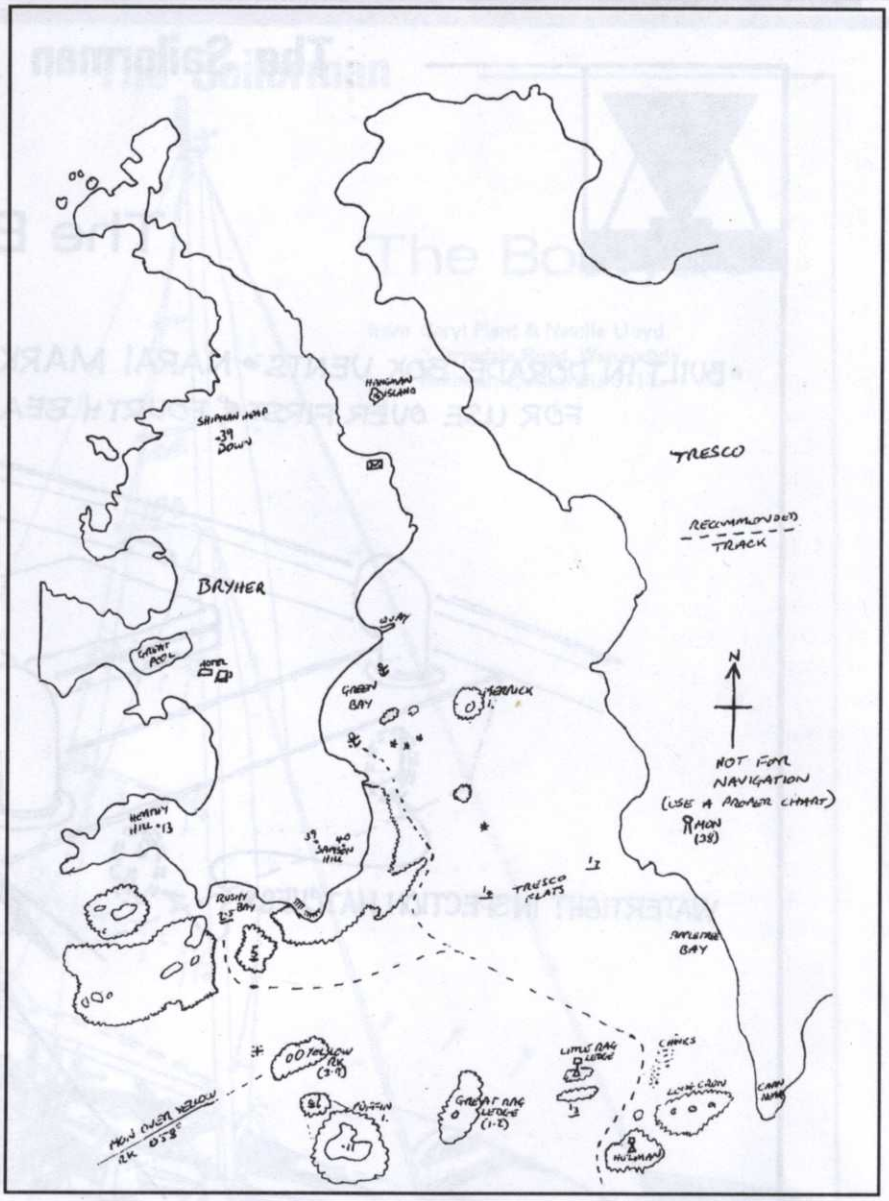
CAT CORNER ~ SCILLY ISLES

Peter Kyne *with more pilot notes of the Scillies - Bryher: Rushy and Green Bays.*

There are several good Bays and beaches on Bryher but the best and easiest to get to for beaching are Rushy Bay and Green Bay.

Rushy Bay is ideal in settled weather with beautiful soft sand, but this also attracts all the day visitors from St Mary's who arrive after 10.00 and leave on the pleasure boats at around 4pm to 5pm. There are two ways to get to the entrance to the Bay.

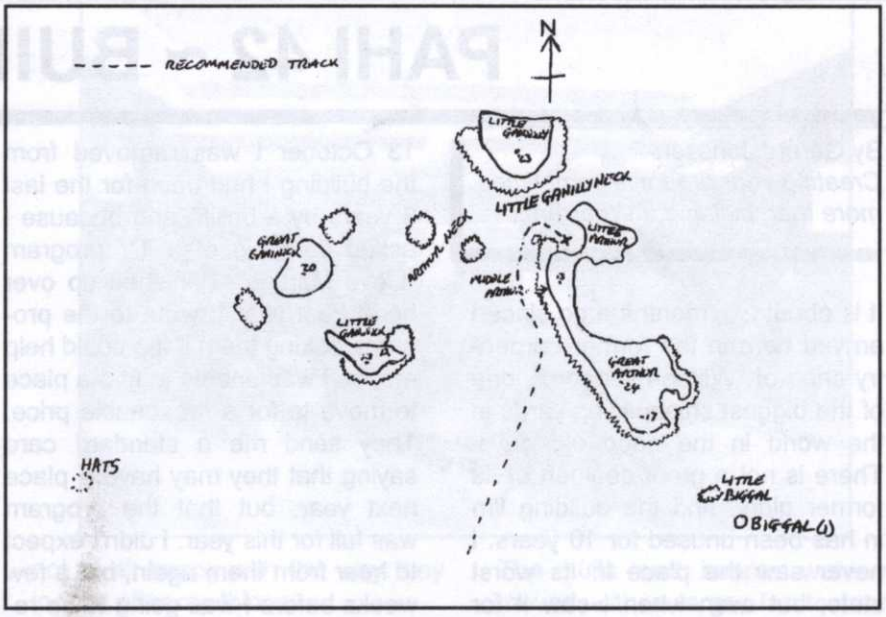
- From the west between the islands of Mincario and Samson you need the monument in transit with Yellow rock to clear Flea rock, which is not always visible, then turn to the north before you strike Yellow rock and you will see the narrow entrance for Rushy Bay.
- The other alternative is to approach from St Mary's Roads by passing between Nut rock and the Hulman. Once at the Hulman, keep it about 10m to starboard as you round it, then to clear between the Chinks and Little Rag ledge the marks are Hangmans island in Merrick island. When the west summit of Samson hill on Bryher bears 302°T then you are clear to head straight for the southeastern shore of Bryher and on to Rushy Bay.



It is not advisable to enter to close to L.W. as there are a few rocks at the point just prior to where the Bay opens out. There is enough room to go between them (depending on beam) as shown in the photograph, we beached 1.5 hrs before LW further up the beach is generally recommended.

To feel more secure in pretty much all conditions then the place to creep into is Green Bay on the east side of Bryher. Ask John Homby who spent several weeks in there in his Tangaroa 'South Seas' earlier this year. Most of this Bay dries even on neaps and there are rocks strewn around to watch for on entering (to many to go into detail). The best way to avoid them is to enter slowly, with your eyes peeled, as they are all visible in the clear waters. Green Bay is much closer to the amenities, i.e. post office, stores and café. The hotel bar (Hell Bay hotel) is open to non-residents should you be in need of refreshment. A short dinghy ride across Tresco channel to New Grimsby harbour means that the New Inn is well within reach also and the New Inn also has an outdoor swimming pool should you feel the need to swim in warmer waters. Be aware that anchoring over towards New Grimsby in Tresco channel will incur harbour dues, there's no point in paying when you can sneak in somewhere nice and quiet and more secure.

Little Arthur



Admiralty Chart 883, pos. Arthur. It has a good beach but almost all the sand covers at HW neaps and all covers at HW springs. Having said that LW spring tides occur around midday in Scilly, so beach the cat in the morning and sail off late afternoon if not intending to stay for the night. If you get in there first most other people planning to spend the day there will most likely go elsewhere so you should get the island to yourself (not guaranteed), and the beach is very good soft sand with very few rocks to worry about. This beach offers excellent shelter almost all round but best for comfort (peace of mind) and relaxing on the beach if the wind is in the ENE to SSW. Little Arthur, in my view, is possibly the best "get away from it all" anchorage in Scilly.

The best approach to the anchorage is from the south. In Crow Sound, head for the SW shore of Great Arthur. There are no immediate dangers along this shoreline and it is possible to go very close in as it is steep and it is easier to follow this shoreline around to the anchorage (a distance of a couple of hundred metres). The bay formed by Great Arthur, Little Arthur, Little Ganilly, Great Ganinick and Little Ganinick is navigable all around but for more or less the centre of it where there are 2 drying ledges well covered with weed and easily spotted when covered. The opening for the anchorage is at the north end of Great Arthur. Once at that point look for the clearest path through the thong weed to reach the bay beyond and to avoid the little ledge. It sounds ominous but the water is clear and it is easy to see any obstructions.

Once anchored, and as the tide ebbs, you should dry out on sand depending how far in you have gone. There is room for more than one cat if cruising in company and it is possible to rig shore lines to keep your boat just where you want her. Judging by a wonderful night spent there recently, this corner has some of the noisiest nocturnal seabirds in Scilly, but far better than listening to the local chucking out at closing time.

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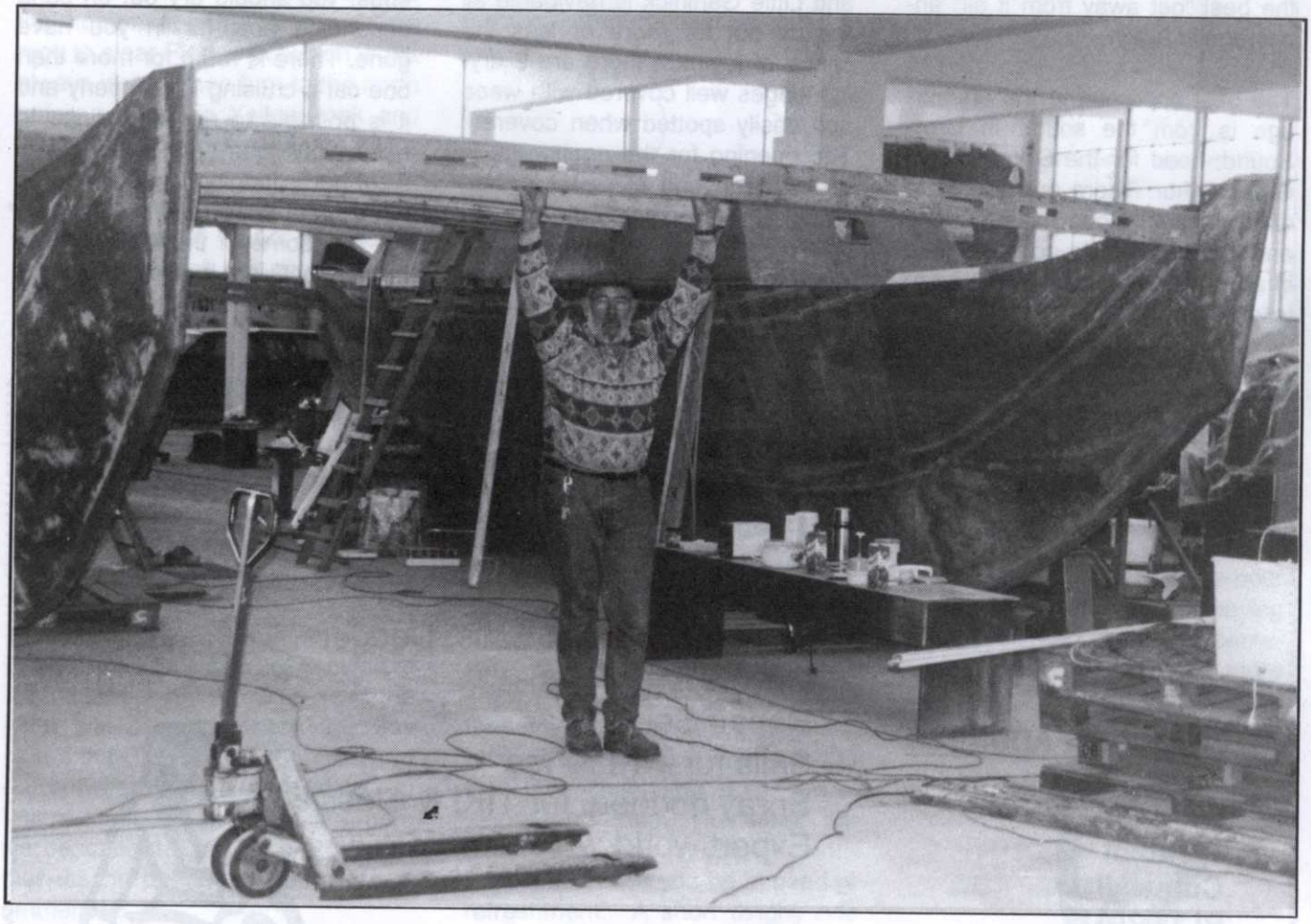
PAHI 42 ~ BUILD

By Gerard Janssen
Creating your dream is sometimes more than building a Wharram!!

It is about 2½ months a go since I arrived here in the former carpentry shop of "Wilton-Fijenoord", one of the biggest shipbuilding yards in the world in the good old days. There is not a great deal left of its former glory, and the building I'm in has been unused for 10 years. I never saw the place in its worst state, but even when I saw it for the first time, it looked a real mess. The city council was going to pull it down, and this would have cost a few million guilders.

13 October I was removed from the building I had been for the last 3 years by a bailiff, and because I asked the help of a TV program "Lieve Martine", I finished up over here! Last year I wrote to the program, asking them if the could help me, as I was unable to find a place to move to for a reasonable price. They send me a standard card saying that they may have a place next year, but that the program was full for this year. I didn't expect to hear from them again, but a few weeks before I was going to be removed, they phoned me and asked how things stood! I told them I was going to be removed by the bailiff in a few weeks, and they help me, and answered. "There is plenty of room!"

I didn't think I had a hope in hell that the program could help me in time. I figured there was insufficient time. Friday evening it would be sent out, any reply would not be received until Monday, and Tuesday morning they would shift me! I believed things would workout somehow, but could not see how! Nothing short of a miracle could help me, and this is just what happened. I was moving some of my things for save keeping, and Aad came looking for me Sunday, normally a day he would use for himself. He didn't find me, and left his



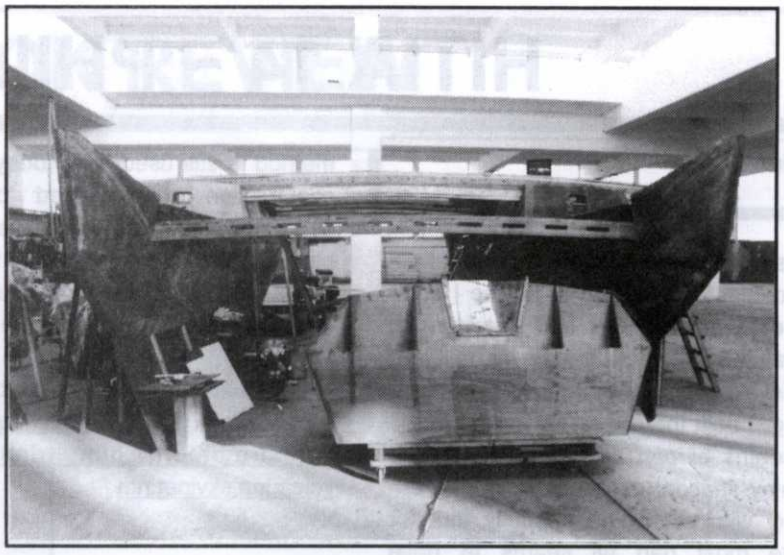
But lucky for me, Aad Hersbach looked at what was left of the buildings, and could see a new future for them. By the time I arrived the mess in the main building had been cleaned up, new windows with double glazing fitted, and repainted inside and out.

told me they would come over on the Monday to do some filming.

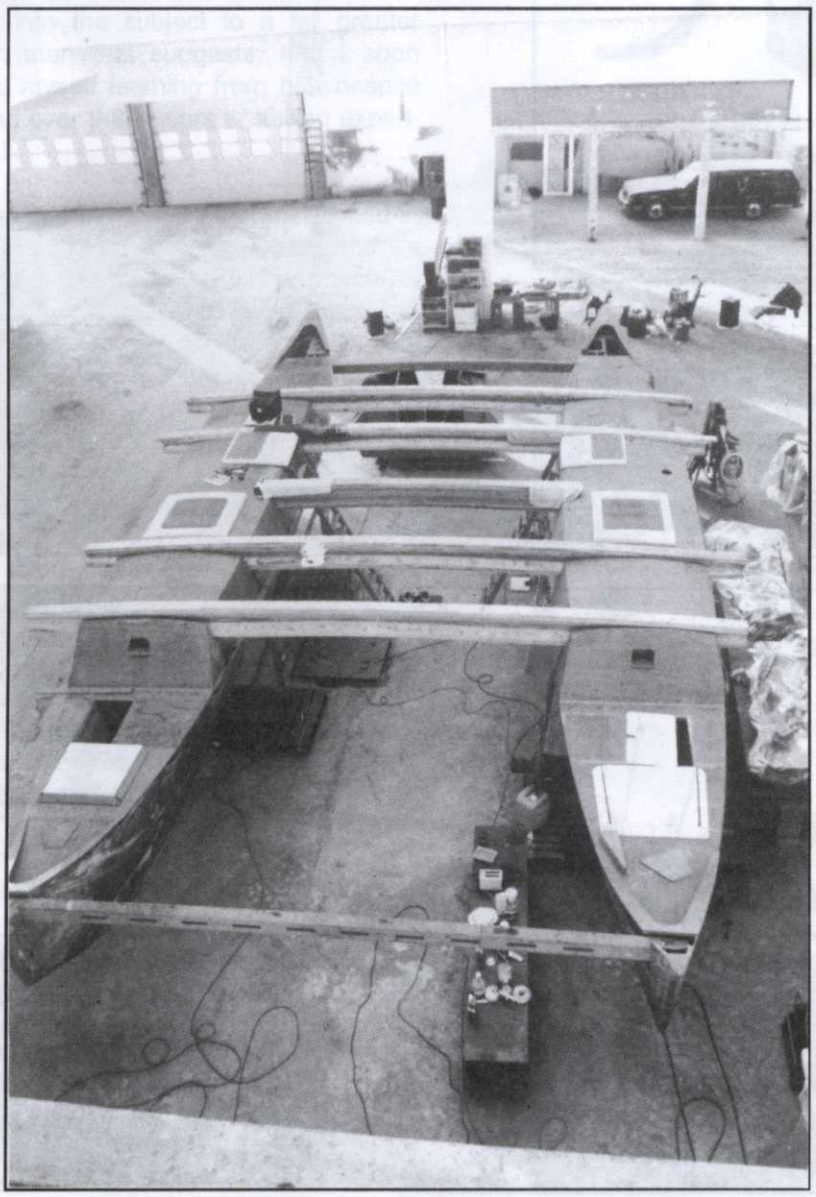
They came over and it was broadcast the next Friday night, and Mrs. Hersbach was zipping and saw the program. When Aad got home she asked him if he could

calling card at the service station next door. A friend called in and found out about the card being left, and seeing they closed at 17.00 hours, took the card with him and left a note on my door telling me about Aad's card. I went to see Aad and he told me about the

space. I phoned Aad that evening. I made an appointment to see him next day after work. When we meet, it was like we were not really strangers. We talked for a while about our interest in life; the old building and Aad gave me the key to I could get in to the place.



The next morning Tuesday, the bailiff and two policemen (for his protection) arrived, with a removal firm and some wreckers. I told them it was an illegal removal, and it must have been, as they stood around for a few hours doing nothing. It the end they called me in the office and told me that it be better if I let them move me, as all the men and equipment were there, and my things would be nicely put in boxes, and I would be moved over in one day. I believed them and gave permission to go ahead. I'm glad I moved in one day, but not at all happy with the way they looked after my things.
The removers are professionals, at least this is what it said on the side of there trucks, but if you bend a umbrella at a 90 degree angle to fit it a cardboard box... and a few things went missing!



The hulls and beams were removed with a large, far to heavy old crane, that looked as if he found it at the dump. He most likely did. It hurt to see how they went about it, but had no choice at the time.

But now I stand in a terrific large place, were I can even put up the mast and rigging, and can't wish for a better place to finish building.

At the moment it is a bit damp and cold over here, but in a few months should give it the finishing touches, and I will have her in the water before the coming winter.

At the moment I'm building an office, and once finished can live in it until I move out. It shall be nice to have a place to entertain visitors, and to relax on a table. I have lived in one of the hulls for about 4 years now, and this is far to long, but had no choice. This was a financial matter! I didn't have the money for both a workshop and a flat, so had to make a choice.

I'm not the person to do nothing, so I believed I might as well keep on building on my dream!

Any one wishing to come over and visit are welcome, but it would be nice if you wrote ore phoned, to let me know of your intention.

Keep on building!

HITIA 14 ~ PHILIPPINES

Dan Green

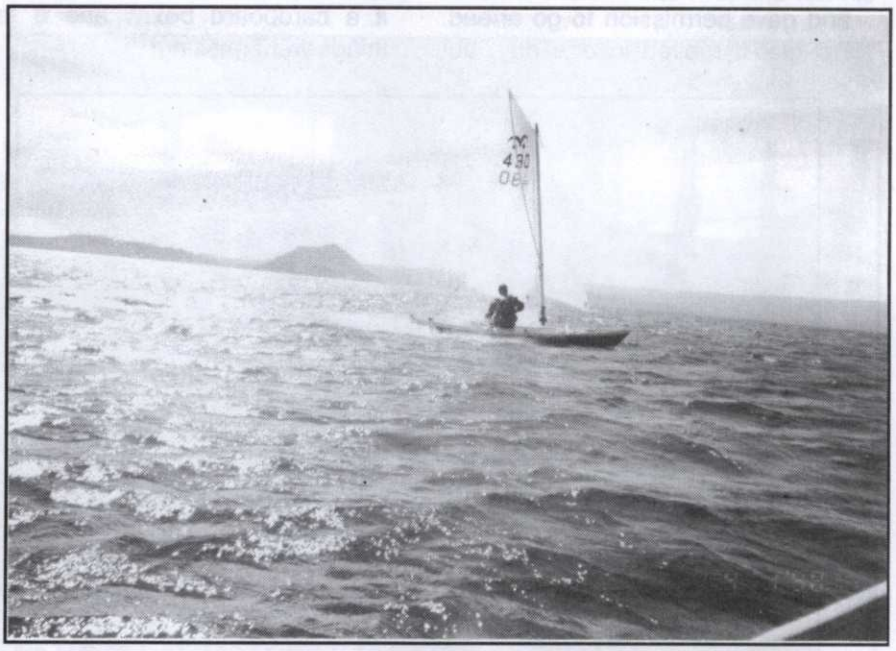
As a fairly new member it's about time I contacted the PCA to advise I completed my Hitia 14 last October. It was the first boat I have ever built and the experience was extremely satisfying. I built the boat on my patio in 3.5 months of part time work during the rainy season; not ideal for curing epoxy with such high humidity, but for the most part all seams to have worked well.

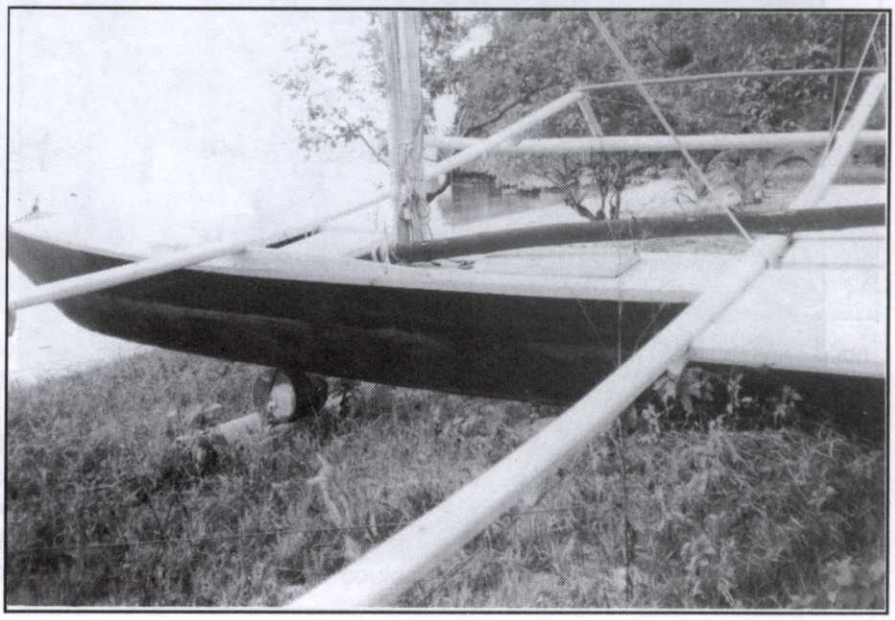
Since launching I have sailed the boat every weekend, and occasionally during the week since I am fortunate to be living right on the edge of Taal Lake in the Philippines. The lake is approx. 116 sq km of fresh water with an island in the middle consisting of 3 volcano heads. In fact, historians have it that the lake itself is the result of one huge volcanic eruption many millions of years ago, therefore we now have 3 volcanoes inside one mega volcano. It is also believed that the Spanish were able to enter the lake from the sea in rowing tenders from their galleons; the access has since silted up which explains why there is salt water below the fresh.

My Hitia has generated a fair amount of interest amongst the local expats, not least Peter Capotosto, the owner of Taal Lake Yacht Club next door to me. Peter has a good website up and running now, and unbeknown to me has recently established a Tiki page with me as the Philippine Tiki Association contact. We plan to do a proper web page shortly and I will put any relevent info. on the page, especially since I have been receiving requests from several individuals around the world about building/buying over here. Maybe we can create a link between the PCA and Sail Philippines.

Enclosed are some photo's to you of my Hitia 14 plus some interesting pics. of a 30 ft I sailing craft I saw in Palawan, Philippines. The craft is built in true Polynesian fashion with huge outriggers, a bamboo mast and nylon fishing line for all lashings. This method is still used here today in the construction of motorised 'banca's' which are prevalent all over the Philippines. It is interesting to note the two styles being built, the 'pahi' is used on the lake while 'tiki' styles on the sea.

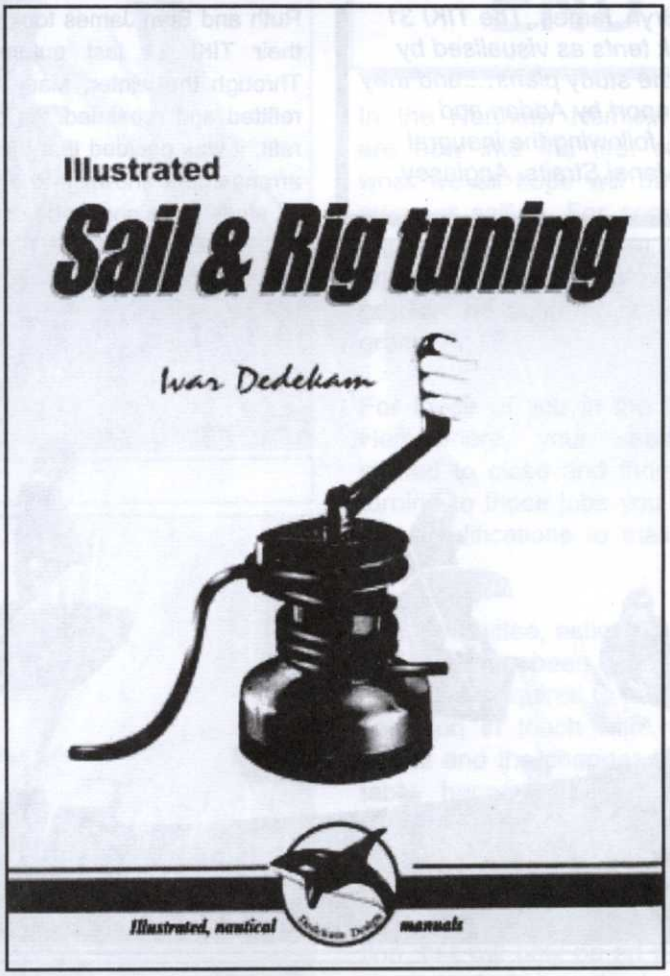
In the meantime, check out: http:www.sailphi.org.ph and http@i'lwww.sa;liphi.ora.phlorgs,htm, dangreen,voicanoa,skvinet.net





BOOK REVIEW

Sail and Rig Tuning
Ivar Dedekam, Dedekam Design, Norway

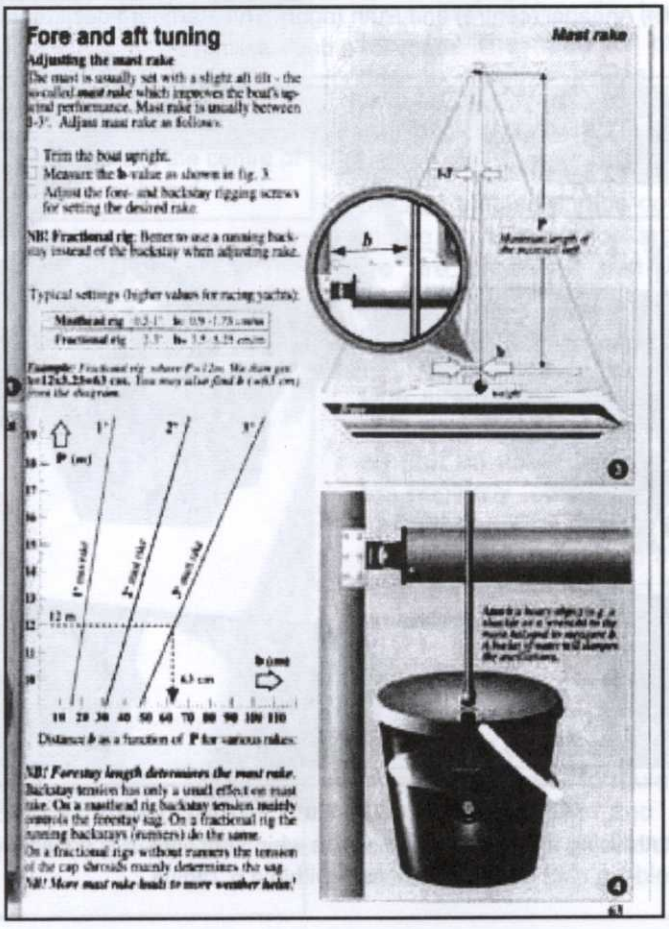


A first flick through this superbly illustrated book could leave one feeling that it does not contain much of relevance to sailors of Wharram catamarans.

The Author concentrates his attention on monohull yachts and Bermudan sloop rig. The very clarity of the drawings could give the impression that the treatment of the material is a little simplistic and somewhat basic.

YES, the very basic information is there and newcomers to sailing would have to search hard and long to find another manual which explains so clearly how a sailing boat works. However, the author goes into the subject to a far greater depth than that suggests, and I soon found myself learning from him despite having over thirty years of sailing experience!

Although multihulls are not mentioned in the text, the section on stability and it's effect on balance and "feel" in monohulls gives some very good insights into the reasons why catamarans behave the way they do. The tips on setting and trimming sails and setting up standing rigging will be useful to all sailors, although Tiki skippers will feel the lack of information about four-sided sails and most Wharram sailors are unlikely to want to pre-stress their rigs to the extent suggested.



The few inaccuracies spotted (tacking and beating do not mean the same thing!), would appear more likely to be errors of translation than mistakes of the author's and do not detract from the book's usefulness. I have no hesitation recommending this volume for your bookshelf.

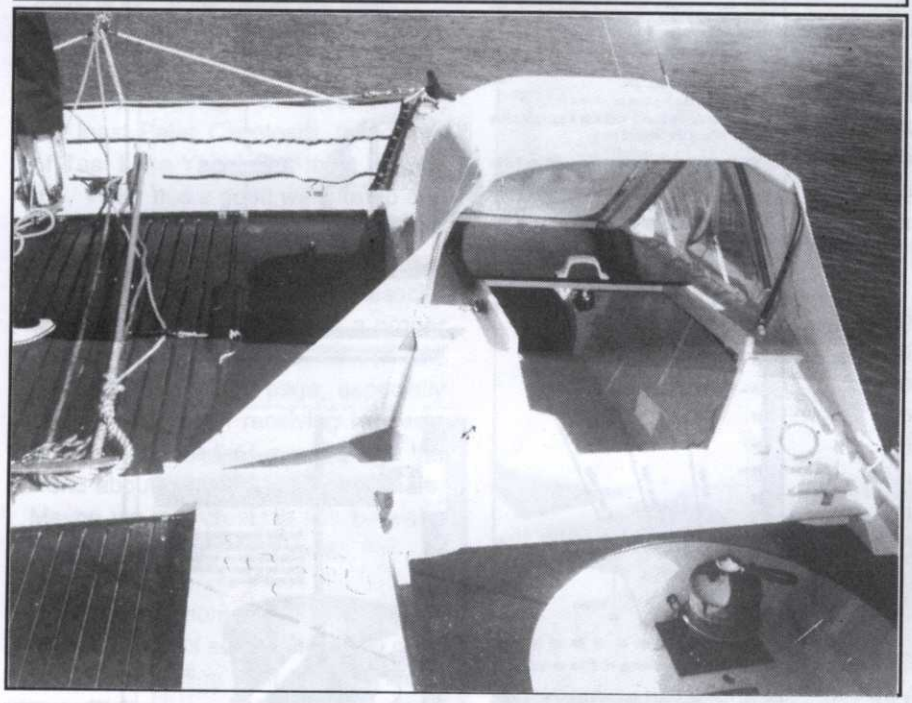
This book can be obtained from PCA/ Scott Brown, price £12.95 but free postage to European destinations & only £1.50 extra to rest of world.

TIKI 31 ~ MAUI

Ruth & Bryn James. *The TIKI 31 with deck tents as visualised by JWD in the study plans….and they work!! Report by Adrian and Annabel, following the inaugral sails in Menai Straits, Anglesey.*

Ruth and Bryn James took delivery of their TIKI 31 last autumn (1998). Through the winter, Maui was totally refitted and repainted. As part of the refit, it was decided that the deck tent arrangement shown in the JWD TIKI 31 study plans should be used.

Bryn (left), Annabel (centre) and Ruth (right). The starboard deck tents erected, ready for a day's sailing

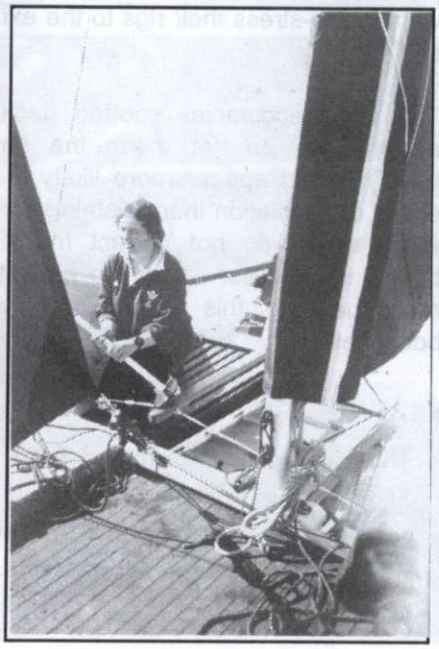


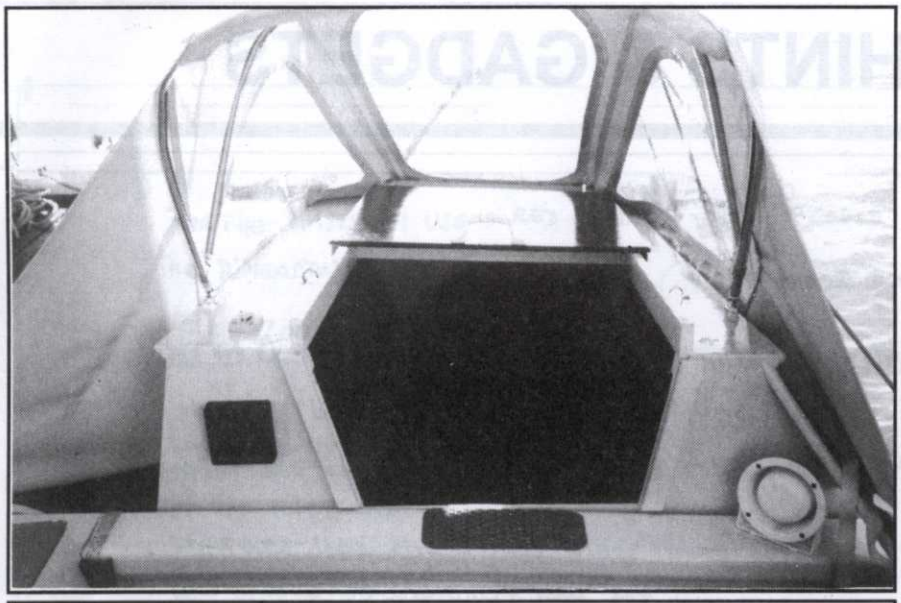
Above. Starboard Deck tent, looking forward.
Right. Ruth using a tiller extension on the whip staff tiller. It is possible to steer from any position within a 6' radius.

The result, as can be seen from the photographs, provide the TIKI 31 with valuable protection. Ruth and Bryn sail in the Menai Straits, and the Irish Sea. Home port is Beaumaris, Anglesey, the island off North Wales. The area has a backdrop of the Snowdon mountain range and renowned for it's scenery, changeable weather and the Swellies. This are an area of water between the two bridges that connect Anglesey to the mainland. In past years many unwary sailors and vessels have come to grief in these turbulent tidal waters. The most famous was the incident of the towing of HMS Conway. She was on tow from Liverpool in the 1950's, to a the south of England, for a rebuild. The tugs ignored local advice and knowledge and the tug captains decided to go through the Swellies when the tide was not at the top. The result...the Conway went aground, and within a couple of days, unable to refloat, her back was broken. She was an historic sailing vessel over 200 years old and was beyond recovery.

The Menai Straits are one of those areas where local knowledge is everything!

The "James Gang" intend to sail the North Wales and Anglesey coasts, and holidays allowing, further afield to the Isle of Man and Ireland.





Port for'ard deck tent.

Brynn relaxing (as usual) The whip staff steering and autopilot are in the centre of the photo. It works very well. Maui is driven by a 15hp outboard.

Ruth and Maui. The deck tents ready for a day's sail. Maui is proving ideal for the North Wales coast.

STERN END

In the Northern Hemisphere, we are now into the first stages of what we all hope will be a great summer sailing. For some of us, the eclipse in southern England/ northern France will provide a target for the summer cruising program.

For those of you in the Southern Hemisphere, your season has started to close and thoughts are turning to those jobs you must do and modifications to make things better.

The committee, acting on your behalf have also been reviewing what mods. are required to keep the Association in touch with members needs and the changes that inevitably happen in our shrinking world.

The next AGM will be a significant event in the history of the Association, but will only be so if you can come and explore the issues that face us. The need for change is due to positive issues. We are growing at a rate of at least 20% per annum, and have consistently done so for the last 5 years. The present elected and co-opted committee have been looking at how we are organised and what our aims and objectives should be today.

One startling piece of research to emerge from our deliberations...we are not an association of builders, as originally conceived in 1968. Less than 50% of the members have bought plans from JWD. We are now an association focussed on sailing....having fun!!

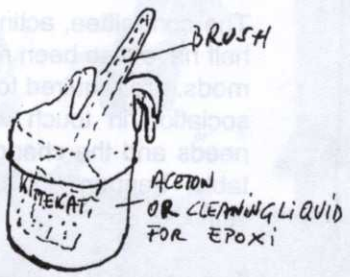
A foot note for those of you who are building and modifying: epoxy is changing and formulations available from new formulators are more temperature and humidity tolerent. Some of them do not blush or cause skin problems!!

21 April 98

DEAR ADRIAN, STEVE AND SCOTT !

DURING BUILDING MY THIRD WHARRAM NOW (TIKI 38 AFTER HITIA 17 AND TIKI 26) I FOUND SOME IDEAS WHICH MADE BUILDING EASIER OR DIFFERENT. I THINK MY TIPS ARE OK FOR YOUR „TIPS, HINTS & GADGETS"-SECTION IN OUR MAGAZINE.

(1) ONE PROBLEM – TO KEEP THE EPOXI BRUSH SOFT. ONE CAN LEAF IT IN A TIN CAN WITH ACETON – BUT SOON THE ~~SOFT~~ FLUID WILL BE EVAPORATED. SO I USE A RUBBER GLOVE (EXAMINATION GLOVES LATEX) TO COVER THE CAN, THE BRUSH IN ONE FINGER.

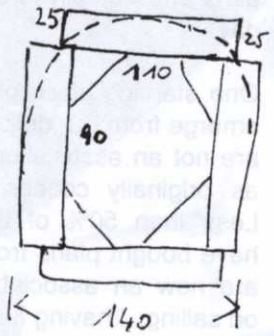


BY THE WAY I COLECTED CAT-FOOD CANS (ALSO DOG-FOOD CANS) AND YOGHURT MUGS MADE FROM POLYETHILENE FOR MY EPOXY WORK. SPATULAS FROM A DOCTOR FRIEND OF MINE ARE A EXCELENT MIXING EQUIPMENT.

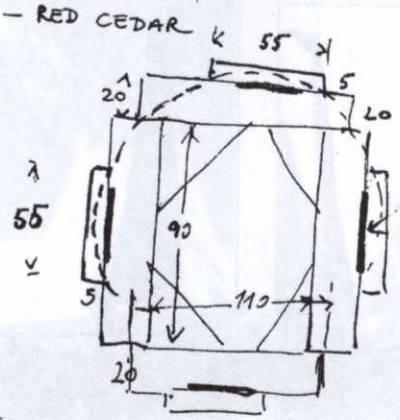
(2) DURING ~~A~~ GLUING YOU MY LATEX GLOVES GET MORE AND MORE STICKY – SO I EVENTUALLY DIP MY HANDS WITH GLOVES INTO A PLASTIK BAG, IN WHICH I COLECTED GRINDING DUST OUT OF MY BELT SANDERS DUSTBAG. THE GLOVES EVEN CAN BE USED SEVERAL TIMES AFTER THIS TREATMENT (INSIDE ALSO – ACTS LIKE TALCUM)

(3) I MODIFIED THE CROSS SECTION OF THE MASTS AS FOLLOWS:

PLAN:



MY VERSION (COULD ONLY GET 20 mm WOOD) – RED CEDAR

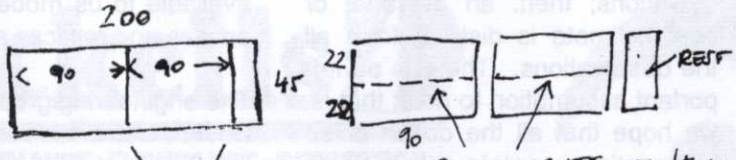


CARBON RIBBON GLUED UNDER ALL FOUR SIDES (125 g/m²)

SAVES A LOT OF EXPENSIVE WOOD

~~THE~~ READY SHAPED MASTS WILL BE GLASSED (185 g/m²) OUTSIDE.

FOR THE MASTS I USE RED CEDAR AND I COULD GET WOOD WITH THE DIMENSION 200 x 45 x 4800 (16') AND CUT THEM AS FOLLOWS:



FIRST TWO CUTS

SECOND CUTS = 4 x 90 x 20

CUTS MADE WITH A BAND SAW (VERY THIN CUTS) SIMILAR I CUT THE OTHER DIMENSION 110 x 20, FROM THE REST I CUT THE 55 x 5 PICES.

IN TOTAL I NEEDED 6 PICES OF WOOD 200 x 45 x 4800 mm FOR ALL TWO MASTS: 9,95 m long and 14 cm DIAMETER!

IN THE MEAN TIME AM WORKING ON THE CROSS BEAMS AND FINISHED THE CONSTRUCTION OF THE TILLER.

AS YOU SEE, THIS TIME I START THE BUILDING THE OTHER WAY ROUND, ALL THE SMALLER PICES FIRST AND THAN THE TWO HULLS.

FIRST BECAUSE I CAN DO MOST OF THE WORK INDOOR DURING WINTER AND SECOND IT IS FRUSTRATING TO HAVE APPARENTLY A BOAT (TWO HULLS) READY, BUT STILL A YEAR TO DO WITH ALL THE SMALL STUFF !!

YOU WILL HEAR FROM ME AS SOON AS I HAVE SOME PICTURES OF MY CONSTRUCTION SITE AND OUTCOME -

GREETINGS TO YOU

YOURS MEINHARD (KOCH)

PS: HOPE I WAS UNDERSTANDABLE!

CRUISING ~ ICELAND

Bill McGraith *gives an insight into the forthcoming Iceland Viking Navigation Voyage.*

On June 1, 1999, the 42ft catamaran "Toroa" will sail from The Clyde, Scotland, to clockwise circumnavigate Iceland in a test of ancient Viking Navigation Techniques. "Toroa" is a James Wharram "PAHI 42" or "CAPTAIN COOK" design which will be under the command of the Owner/ Builder, Mr Peter Richardson for the one month voyage.

The five person crew will include the vessel's designers, James Wharram and Hanneke Boon, as well as the well known Mike Richey, trans-Atlantic single-handed racer and past Director of the Royal Institute of Navigation (London). Also aboard will be a retired US Navy Commander and former Captain of several warships who will attempt to assess the degree of proficiency required of an ancient Norse Navigator, and the degree of accuracy possible when using the ancient style navigation gear.

The gear under study consists mainly of replicas of 1000 year old Norse Sun Compasses found in times in Greenland excavations. It is an instrument used to find direction in day- time. It consists of a horizontal board with a vertical stick located about at its centre. The tip of the stick casts a shadow onto the board and its movement is marked on the board from sunrise to sunset close to the sailing date. A line drawn from the base of the stick to the closest point of the shadow line is a North-South direction. The course is laid, then the vessel is steered for an hour or so by the direction of wave movement, wind direction, sun's shadow on parts of the boat, etc, without constant tedious checking of the Sun Compass. Constant checking would not only be tedious, but also, any one observation would likely carry a major, or at least significant, error. Therefore, a single determination of correct compass direction requires a dozen or so observations; then, an average, or best estimate is distilled from all the observations. There is an important assumption to note: that is, we hope that all the dozen or so observations contain only random errors (not consistent errors) so that, after averaging the observations, the most accurate estimate of direction will prevail.

From day to day we make the assumption that our Latitude has not changed as that would change the length of shadow from the stick. However, we may detect a Latitude change from day to day by noting how much and in which direction the solar noon shadow changed in its length.

If the voyage takes place around the Summer Solstice, than the change of Declination of the Sun will not interfere with the accuracy of the compass readings. Fortunately, most Viking voyages were during June when the North Atlantic storms had not come 1 earnest and when the Sun's Declination makes only minor and almost unimportant changes, i.e. , say, June **5th** to July **6th.**

The use of the Sun Compass is particularly important because of the long periods of daylight in the Northern Summers. Also, the stars and planets are not very helpful during the short and well light skies at "night", although Vega, Deneb, and Altair can be seen around midnight, and often Jupiter, Saturn and Venus, depending on the year.

We have had much assistance with this research, primarily from Danish retired sea Captain and Curator at the Danish Maritime Museum Captain Soren Thirslund. He has published just recently the authoritative book on the subject, "Viking Navigation", 1998, and in addition supplied us with all the data on Sun lines for various dates and Latitudes, as well as making available to us modern Sun Compasses and replicas as well.

The engineering group in Adelaide, South Australia, "Sundials Australia" has provided us with quite authentic replicas of the Viking Sun Compasses, as well as much data on the expected paths of the Sun during our proposed voyage.

Iceland Circumnavigation:
Http//www.wharram.com/norsenav.html

Information on sea and ice conditions to be expected as well as information on the care and safety of the vessel in Arctic conditions have been provided by Engineer Ole Bentzon of Denmark, long time resident of Greenland.

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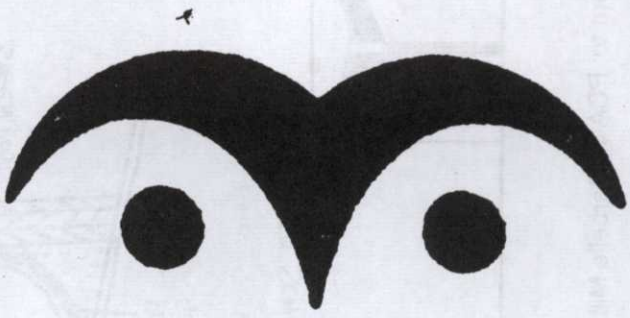

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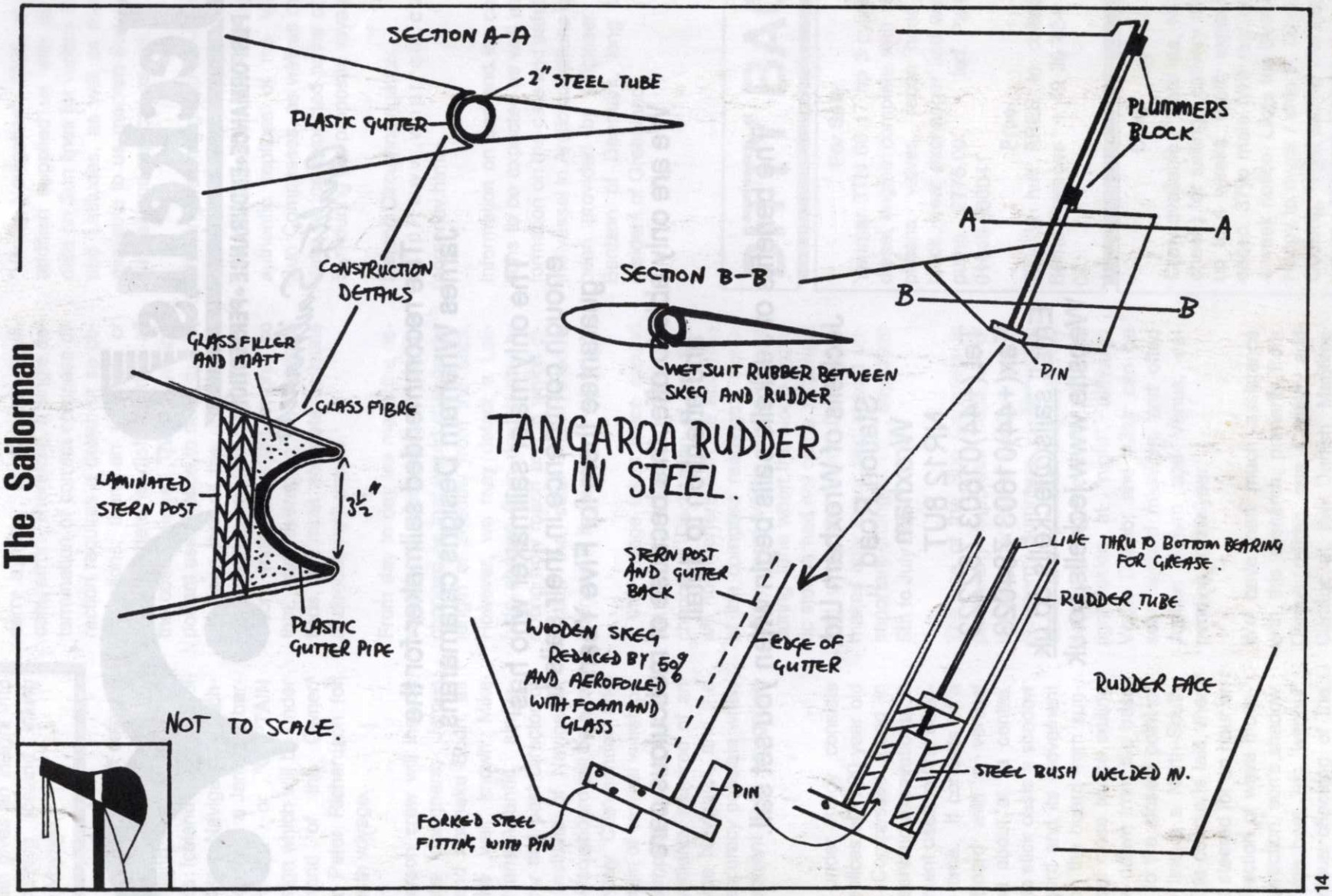

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